INTEGRATED MARKETING COMMUNICATION APPROACHES ON THE ENVIRONMENTAL ISSUE OF RECYCLING:

A COLLECTION OF SECONDARY AND PRIMARY RESEARCH TO ANALYZE TRENDS IN COLLEGE STUDENTS RECYCLING ATTITUDES AND BEHAVIORS AND THE CONDUCTION OF AN IMC CAMPAIGN TO PREMOTE RECYCLING IN HIGHLAND SQUARE, SPECIFICALLY

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A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

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DEDICATION

I would like to dedicate my thesis to all those who take one-step closer to the solution rather than the problem.

I would like to recognize my family who constantly supports and encourages me to achieve happiness and whatever ‘success’ means to me.

A special thanks is given to my friends for providing me with the comfort of a home away from home and the support system of a second family. Thank you for your constant positivity throughout the process.

A note of recognition is also given to my thesis advisor Mrs. Sparks, UM professors who have taught me everything I know, and Highland Square, The City of Oxford Recycling and Republic Services for their cooperation and participation.

ABSTRACT

INTEGRATED MARKETING COMMUNICATION APPROACHES ON THE ENVIRONMENTAL ISSUE OF RECYCLING:

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Undertaking this thesis project was a task I was determined to fulfill with the upmost enthusiasm, positivity, and patience. When first deciding the topic of my research, I started with a list of criteria that had to be met: personal interest in the matter, hands on work with people and organizations within Oxford, and a way for me to impact the Oxford community for the better.

Choosing to research college students recycling attitudes and behaviors both on and off campus and creating an integrated marketing campaign to raise awareness combined not only information accumulated through my academic years at Ole Miss, but also my passion for environmental sciences and sustainability.

Secondary research along with primary research including observational studies, surveys, and interviews were the methods and procedures used to obtain data.

It was found that students at the University of Mississippi are previously exposed to recycling behavior from their hometowns prior to enrollment. However, after enrollment recycling participation declines with major obstacles being convenience and availability. Many off campus student housing complexes do not offer recycling services, therefore with the implementation of recycling to off campus housing, student participation in recycling would be projected to increase and expectations of living would in turn rise.

As limitations of time and resources prevail, the conclusions of the research is left to be determined. The researcher encourages Highland Square management to consider the findings of the research in favor of switching to the City of Oxford Recycling to implement curbside recycling services. With the implementation of curbside recycling services and the prepared integrated marketing campaign, it is projected that recycling participation by college students would increase and carry with them as a continuous habit throughout their life.

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SECTION 1: INTRODUCTION

1.1 The Purpose of this Study

As the population in Oxford, MS, is growing, so is the emergent need for more sustainable and available public services, including expansion of recycling services in multi-unit student dwellings surrounding the University of Mississippi campus. The primary objective of this research project will be to analyze the recycling attitudes, behaviors, and expectations of college students living off-campus, focusing specifically on those living in Highland Square. A secondary objective will be to establish efficacy of recycling messaging and placement by applying IMC principles to creating a campaign to raise awareness. The projected outcome is that recycling will become available and enhance the brand image of the off campus complex, Highland Square, and become habitual for the residents, thereby raising their satisfaction with off campus housing and City of Oxford services.

Extensive studies, including the analysis of secondary research and the conduction of primary research, such as surveys, observational research and interviews, will be carried out and evaluated to better understand the current attitudes and behaviors of residents toward recycling. Highland Square and the City of Oxford will be involved in the project,

offering insight into attitudes and behaviors as well as the overall results of the study. A promotional campaign to raise awareness and participation will be planned in hopes of execution. The campaign will use integrated marketing communication tactics to reach the target audiences and publics—residents of Highland Square, other off campus complexes lacking recycling bins, and the entire Oxford community. The effect of recycling availability and change in consumer behavior should be tested as well as the effectiveness of the campaign to reach and influence the audience at the appropriate time.

The evaluation of the campaign should compare off campus residents' current attitudes, behaviors and habits on recycling before and after the availability of bins in the complex. It should evaluate the effects of the marketing campaign on its intended audiences and publics. Furthermore, it should test if there is any effect on Highland Square as a business or if positive perception is increased.

Insight will be gained on why some people choose not to recycle and if factors such as one's political party, hometown, or campus recycling behavior play into his/her recycling behavior off-campus; what causes people to ignore this pressing environmental issue of the Twenty First Century? It is predicted that once recycling bins become available in Highland Square there will be more than a 75% participation rate of residents and the amount of waste disposed of will decrease by more than 30%; the campaign will reach 100% of the residents and influence more than half of the tenants to alter their recycling behavior.

1.2 The Importance and Benefits of Recycling to Today's Consumer

> *"There are significant environmental and economic benefits associated with recycling. Recycling helps create jobs, can be more cost effective than trash collection, reduces the need for new landfills, saves energy, supplies valuable raw materials to industry, and adds significantly to the U.S. economy."*
>
> –U.S. Environmental Protection Agency

The benefits of recycling have been proven to stimulate changes in both the environment and economy as well as increase one's sense of community. Government agencies, universities, science researchers, and others have done extensive studies to provide statistical analyses and credible information on the subject of recycling and its benefits locally, nationally, and internationally. The simple act of recycling can transform a community's environmental quality and economy. Environmental benefits include reducing emissions of greenhouse gases and pollutants as well as the more commonly known reasons, conserving resources and helping to sustain the planet for future generations. Despite the common misconception that starting recycling services in communities is costly and difficult, it has proven to create jobs, make trash collection more efficient and effective, increase space in landfills and reduce the need to create new landfills, recycling has proven to save energy, supply raw materials, and add value and worth to the economy as a whole.

The most effective and ideal way to reduce waste is to not create it in the first place. However, over-consumption as a way of life has swept across the nation, greatly contributing to an increased waste of resources and increased pollution. To break the cycle of consumption one needs to remember the three R's—reduce, reuse and recycle. Reducing

one's consumption is the first step in eliminating waste. Second, one should favor reusable items over disposable ones. The last step would be to recycle the item. If the item is a necessity and can no longer be reused it should be properly disposed of. Simple ways to eliminate waste, besides not consuming in the first place, include buying in bulk, repairing products, borrowing, renting or sharing items, buying second-hand items, choosing items with the least amount of packaging, and choosing items that can be reused and recycled (Communicating the Benefits of Recycling. EPA).

As global population continues to grow exponentially, the amount of waste produced grows simultaneously. The future and well being of Earth is at risk and if the human race as a whole doesn't come together to make changes on consumption behavior and recycling actions there will be serious negative consequences. Recycling saves energy, especially during the manufacturing stage because the amount of energy needed to create products from 'virgin materials' is much higher than if the product was made from recycled material. Recycling reduces pollution and preserves the environment by reducing the amount of fossil fuels needed in manufacturing, which results in a decline of greenhouse gases being released into the atmosphere. A third major benefit is the preservation of natural and non-renewable resources. Recycling uses the core elements of products to create a new product, eliminating the need to use natural resources. A fourth, major, environmental benefit of recycling is the fact that it saves space in landfills needed for waste disposal. By eliminating recyclable materials in landfills, large portions of space are made available for trash. When people and organizations don't recycle properly, the reverse effects of the benefits occur and unnecessary and irreversible damage is done to Earth.

1.3 Recycling Facts

The following information was taken directly from the article *Interesting Recycling Facts, Benefits-of-Recycling*'s online webpage. The use of the following information is to further one's background knowledge of recycling benefits and put the statistics into an alternate perspective.

Interesting Recycling Facts / Paper

- Recycling 1 ton of paper saves 17 mature trees, 7,000 gallons of water, 3 cubic yards of landfill space, 2 barrels of oil, and 4000 kilowatt hours of electricity. This is enough energy to power the average American home for 5 months.
- The process of recycling paper instead of making it from new materials generates 74 percent less air pollution and uses 50 percent less water.
- Manufacturing recycled paper uses 60 percent of the energy needed to make paper from new materials.
- Over 73 percent of all newspapers are recovered for recycling. About 33 percent of this is used to make newsprint the rest is used to make paperboard, tissue, or insulation.
- A little more than 48 percent of all office paper is recycled. This is used to make writing papers, paperboard, tissue, and insulation.

Interesting Recycling Facts / Metal

- Recycling steel and tin cans saves 74 percent of the energy used to make them.
- Americans throw away enough aluminum every month to rebuild our entire commercial air fleet.
- Americans throw out enough iron and steel to continuously supply all the auto makers in the entire nation.
- A steel mill using recycled scrap reduces water pollution, air pollution, and mining waste by about 70 percent.
- When you throw away an aluminum can you waste as much energy as if you'd filled the can half full of gasoline and poured it into the ground.
- Americans use 100 million tin and steel cans each day.
- Recycling one aluminum can saves enough energy to run a 100 watt light bulb for 20 hours, a computer for 3 hours, and a TV for 2 hours.

Interesting Recycling Facts / Plastic

- Enough plastic is produced in the United States each year to shrink wrap Texas.
- In 1998 Americans used 2 billion pounds of HDPE to make plastic bottles for household

products. That's the equivalent weight of 90,000 Honda civics.
- Approximately 88 percent of the energy is saved when plastic is made from plastic rather than from the raw materials of gas and oil.
- Enough plastic bottles are thrown away in the United States each year to circle the Earth four times.

1.4 Current Issues with Recycling in Oxford, MS, Specifically Highland Square

The city of Oxford, MS offers recycling services on campus as well as off campus in selected areas. Curbside recycling services for residents within select areas can be provided for an optional $6.00 per bin by the City of Oxford (Recycling Services). Businesses and industries are advised to use the Recycling Center on Pea Ridge Road. Oxford is responsible for recycling aluminum cans, steel cans, plastic 1 and 2, mixed paper, newspaper, and cardboard.

Curbside Recycling Services are available in specified zones throughout Oxford. *Figure 1 A Curbside Recycling Zones*, displays the areas in Oxford that offer roadside pick up (Recycling Services).

Each color in *Figure 1 A Curbside Recycling Zones* represents a different region in Oxford with different pick up dates. The Northwest Zone is identified with the area shaded in yellow. *Figure 1 B Northwest Recycling Zones* shows an enlarged map of the Northwest zone that offers curbside pick up and the star represents Highland Square's location (Recycling Services).

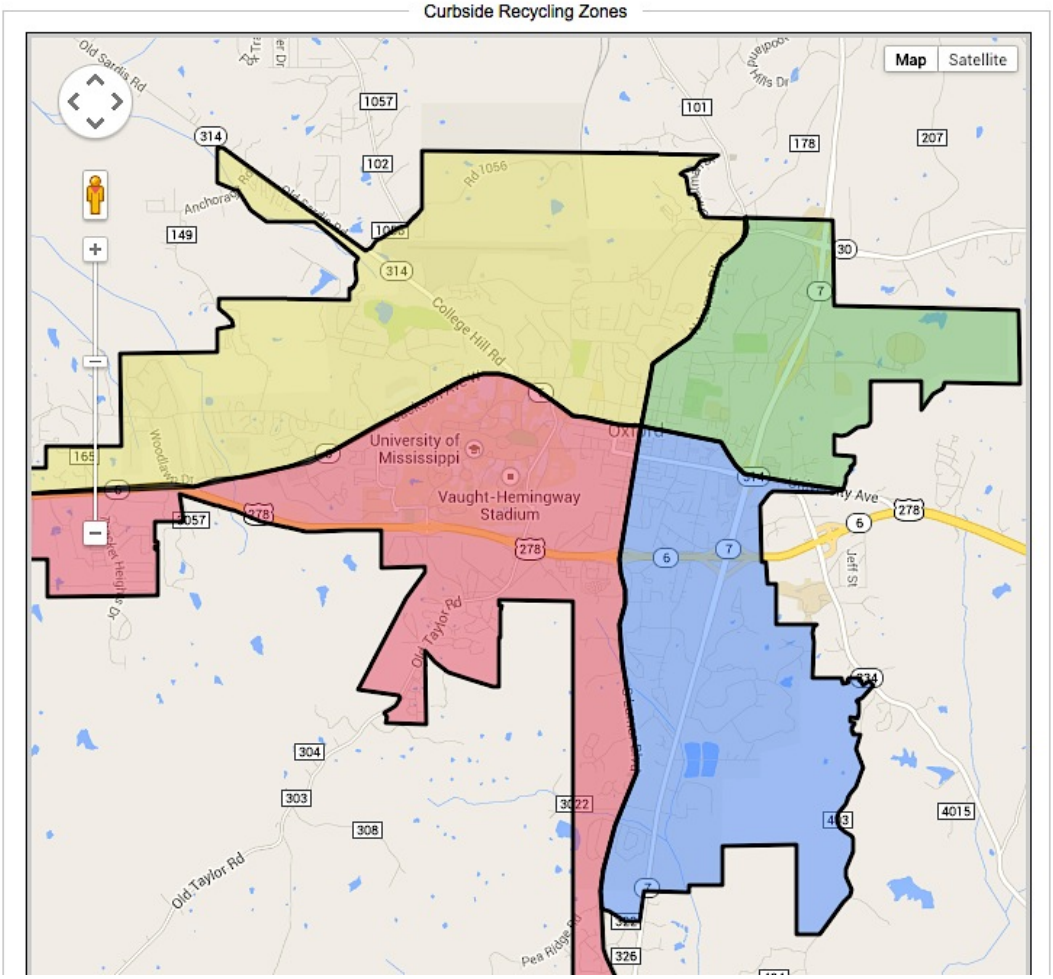


Figure 1 A Curbside Recycling Zones

Highland Square lies within the boundaries of curbside recycling but the complex chooses to use Republic Services instead of the City of Oxford. Republic Services does not provide recycling options to Highland Square. Other off-campus complexes in Oxford, within the boundaries don't offer recycling as an amenity.

Availability and convenience act as significant catalysts in college student recycling behavior and with an improvement on behalf of the apartment complex to provide the service there would naturally result in an increase of recycled waste.

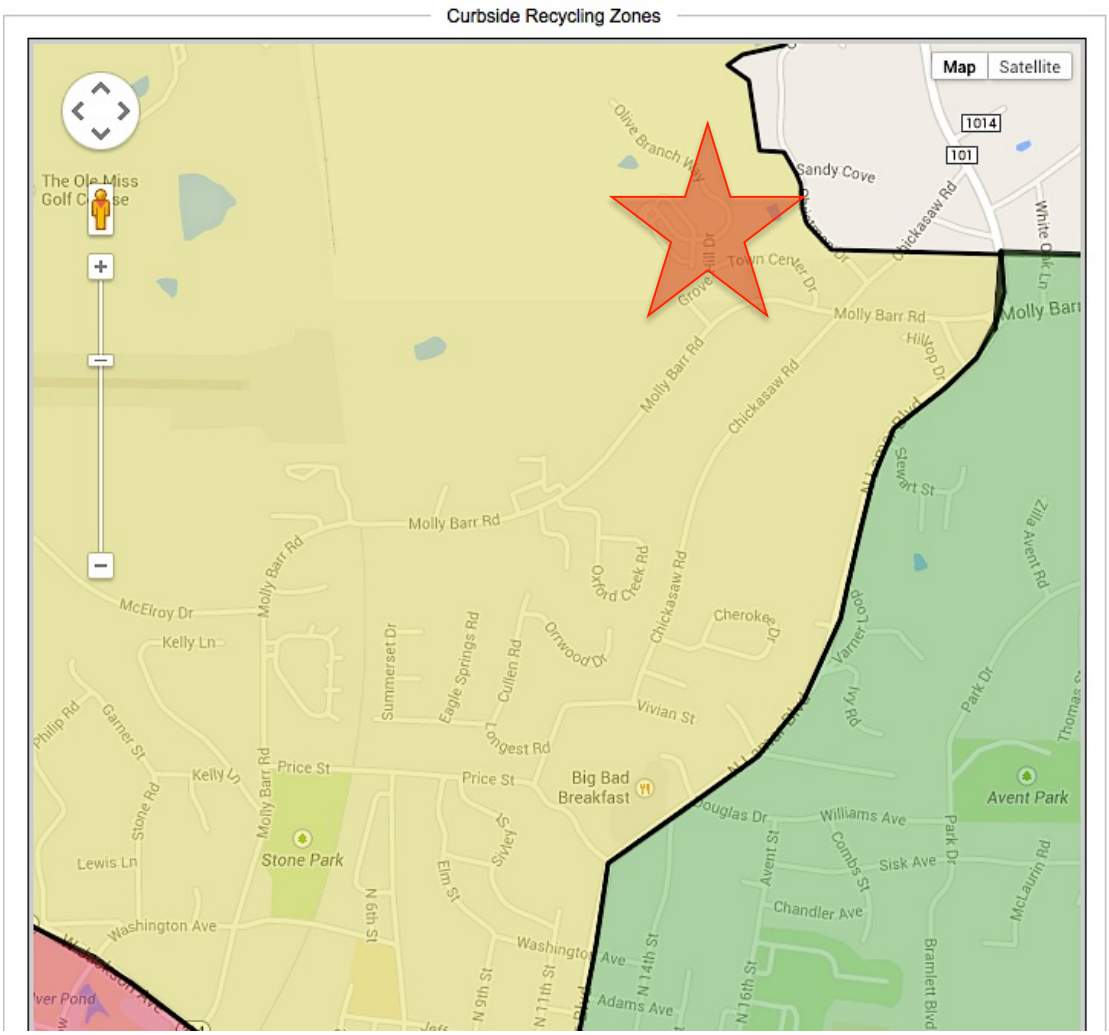


Figure 1 B Northwest Recycling Zones

1.5 Overview of Integrated Marketing Communications

Often referred to as IMC, Integrated Marketing Communications is a relatively new field of study at the University of Mississippi and has gained its popularity by combining journalism and business into a single degree. IMC is a strategic marketing concept that unifies a campaign idea and communicates that idea among multi media platforms together

to connect a message to an audience in a consistent, relevant manner. Platforms can be any combination of advertising, sales promotion, public relations, direct marketing, social media and gorilla marketing used to deliver a single, clear, concise, and integrated message to the target audiences and publics. As MMC Learning stated in an online article, *Marketing Communications,* "Although Integrated Marketing Communications requires a lot of effort it delivers many benefits. It can create competitive advantage, boost sales and profits, while saving money, time and stress" (Integrated Marketing Communications (IMC)). Those using an IMC strategy benefit greatly, increasing awareness and participation rates as well as profits in sales or service, if the campaign is executed carefully and the planning stage is meticulously thought out.

To communicate a message there has to be a sender and receiver and what ever is being communicated must be comprehended. There are multiple obstacles that can occur during the communication process hindering the effectiveness of the message. Deciding the appropriate audience for the message and how to reach them is a beginning step in the process. The audience's needs, emotions, interests, and values and lifestyles (VALS), need to be analyzed and understood in order to know how to create the proper message and deliver it. If there are any errors in defining the audience or how to deliver the content, the message could not reach the audience, be misunderstood or the message could be ignored all together.

The consumer always comes first in IMC and is the central focus throughout a campaign. IMC's constant focus is on the consumer and building a positive, loyal, two-way relationship. As relationships develop, so does brand value and loyalty, which is a main component to achieve success. Success in IMC is when a creative and unified campaign is delivered to the target audience, the message is clearly understood, and the message prompts

the consumer to react/respond in someway. Success can be measured by increased awareness, sales, profit/loss, etc.

Integrated Marketing Communications is expanding and changing the world of marketing and advertising and it is affecting all areas of daily life for a consumer. The growing industry is constantly coming up with new and innovative ways to reach consumers and get brand recognition. The average American is exposed to anywhere between 3,000-20,000 advertisements a day (Lamoureux, David). Most encounters with these advertisements go unnoticed, only processed by our subconscious, but the goal of IMC is get the message delivered and processed in a way where they won't be overlooked. The consumer needs to be stimulated and drawn in to the message—it can't be just another one of the 3,000 advertisements one ignores throughout the day. Using an IMC approach to a campaign helps set one organization apart and above from the rest, bringing in more success and raising more awareness than a simplistic, single-platform, marketing plan would.

In relation to this particular research study on recycling attitude and behavior, an IMC campaign was the most appropriate way to influence the public. Emails, direct mail, social media, posters and flyers will all be useful platforms in getting the message to the residents of Highland Square. Once the research is complete and the bins are implemented the information could be useful to Highland Square administration and marketers in providing further insight on the attitude and behavior of their residents. The information could be used to alter/change the way Highland Square promotes the complex and connects with its residents.

1.6 Overview of the Formation of Habits

"*This process—in which the brain converts a sequence of actions into an automatic routine—is known as "chunking," and it's at the root of how habits form."*

–Charles Duhigg

To understand and change the recycling behavior of residents at Highland Square is it important to have a comprehension of the basic ideas that form the Habit Loop and how to apply it. As research is conducted, the cues, routines, and rewards for when one goes to dispose of an item will be closely monitored and recorded. Discovering routines of residents who do recycle and those who don't recycle will help the researcher better understand the behavior and how to alter it.

Scientists have been researching habits for years and there are countless theories on how to alter or change habits of all kinds. In the book, *The Power of Habit, Why We Do What We Do In Life And Business,* written by Charles Duhigg, habits are explained in great detail so one can understand the basic principles of how they are formed, altered and changed. Duhigg introduces the 'Habit Loop'—cue, routine, reward; cue, routine, reward—which is the formula to addressing a habit and how to change it, displayed in *Figure 1 C Habit Loop* (Duhigg, 19). By understanding the scientific explanation of habits, research can be conducted to assess current behavior on recycling and the information obtained can be used to alter the behavior and habits into a new routine—recycling.

The process of forming a habit is done using the Habit Loop. A cue is a trigger that tells the brain to use a habit, automatic behavior previously stored. Once the brain is

triggered there is a routine, the routine can be physical, mental, or emotional. After the routine there is a reward, which allows the individual to assess whether the particular loop is worth remembering. As the loop becomes more automatic there is heightened anticipation and craving (Duhigg, 19).

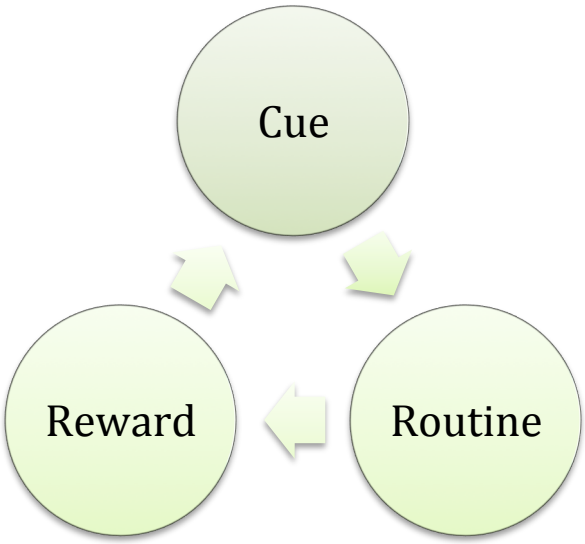


Figure 1 C Habit Loop

Charles Duhigg states, "We might not remember the experiences that create our habits, but once they are lodged within our brains they influence how we act—often without our realization" (Duhigg, 25). The Habit Loop stands as the basic principle of habits and has been used to influence human behavior by video game designers, food companies, hospitals, and millions of salesmen around the world (Duhigg, 33). Procter & Gamble owe a lot of their success in marketing to the Habit Loop and their understanding of its influence. P&G executives study their consumer's behavior—identifying cues, routines, and rewards—then evaluate the loop looking for clues to help market the product. It was concluded that, "to change an old habit, you must address an old craving. You have to keep the same cues and rewards as before, and feed the craving by inserting a new routine." (Duhigg, 71).

In the Brain and Cognitive Sciences department of the Massachusetts Institute of Technology, experiments are constantly revealing new findings and information on habit formation. Lab rats have been used to study brain waves and brain frequency in forming habits and routines. When the experiment began in the 1990s, the researches started off by implanting small sensors in the skull of the rat, which would detect and record even the smallest changes within the brain. The rat was then placed in a T-shaped maze with chocolate as the reward in the upper left corner. There would be a loud click and the partition holding the rat at the starting point would lift, allowing the animal to explore the maze until the reward was found. The researchers observed the rat sniffing up and down the main isle, clearly having smelled the chocolate, and noticed patterns and trends as the rat began in search of finding the chocolate. When the rat would reach the top of the T is would turn to the right, opposite of the reward. Eventually it would find the chocolate and would be satisfied. When the researches analyzed the process from the results of the brain sensor, they found that the rat was not leisurely and absent-mindedly scoping out the maze as it had appeared during observation, but it was constantly and frantically processing information. As the study was repeated, a trend was discovered—the rat's brain activity was decreasing the more it was exposed to the maze, the path to the chocolate had become routine.

It was discovered that the basil ganglia, a lump of tissue located deep inside the brain and close to the brain stem near the spinal column, is responsible for controlling our automatic behaviors, recalling patterns and acting on them. This new acquisition of information allowed scientist to better understand habits, the process in which they are formed and how they can be changed. The rat experiment was used to gather information that was then applied to the understanding of human behavior.

The basil ganglia gives humans the ability to perform daily, routine activities without being aware of every part of the process, we have created 'behavioral chunks,' which is a sequence of actions the brain converts into a automatic process/routine. We use behavioral chucks for simple and more complex routines. When one backs up a car or brushes his/her teeth in the morning, one uses a routine, the basil ganglia, allowing the brain to focus on other thoughts or actions (Duhigg, 17).

The marketing campaign used to raise awareness for recycling will aim to use knowledge of current routines to alter behavior in a creative and effective way by creating a new routine. The brain can be reprogrammed, so after the cue, routines, and rewards for college students recycling behavior is recognized it will be easier to address alternative routines and come up with a marketing strategy that promotes a habitual change.

SECTION 2: THE CONSUMER EXPERIENCE GAP MODEL

2.1 Overview of the Consumer Experience Gap Model

For an organization to be successful in an industry it is important to understand the wants and needs of the consumer—this is a basic principle in IMC as well as business—the consumer/target audience is the priority. This seems like a simple enough concept, however, there are complications that arise, and gaps that transpire as customers expectations aren't met—satisfaction and loyalty are negatively effected. The gap results in dissonance. High levels of dissonance will negatively effect the satisfaction levels of students in Highland Square, making success of the organization much more complex and harder to achieve. Eventually, a perceived gap could cause levels of dissatisfaction that could impact Highland Square's ability to lease living space at high occupancy rates or cause negative word of mouth as consumers share their experiences and voice dissatisfaction with Highland Square's recycling services.

The theory of how a consumer forms expectations and how the provider can meet those expectations is explained by the concepts in the book *Delivering Quality Service: Balancing Customer Perceptions and Expectations* by Zeithaml, Parasuraman, and Berry. *Figure 2 A Customer Experience Gap Model* displays how the consumer forms expectations

of a service and how an organization perceives the customers' expectations. Gaps/shortfalls occur when there is a miscommunication of the customers' needs and wants and the delivery of the service. *Figure 2 A Customer Experience Gap Model* properly identifies and labels the areas of miscommunication, which are termed 'gaps'.

As the understanding between the customer and provider weakens, the gaps expand and the level of success decreases. When a gap occurs between two stages, the level of business success is lowered: the providers' perception of the customers' expectations is skewed from reality and the organization is not able to properly deliver their service. The gaps are identified as the knowledge gap, the customer gap, policy gap, delivery gap, and the communication gap.

The Knowledge Gap is created when the provider misinterprets the customers' expectations. The provider is not meeting the consumers' needs in some way or at all with its service. Management perceptions of customer expectations differ from the customer's expected service resulting in a decrease of sales and increased dissatisfaction.

The Customer Gap is created when there is a difference between what the consumer expects of the service based on word of mouth, personal needs, past experience and external communications and how the consumer actually perceives the service after consumption. A customer is completely satisfied with a company's service when his/her perception was as he/she expected it to be.

When problems of miscommunication arise between management and the expectations of service delivery employees the Policy Gap is created. It is important that management makes clear to employees and those who deal directly with the customer the

service policies and guidelines of the organization. It is suggested that an organization can close the gap by setting performance standards based on consumer expectations.

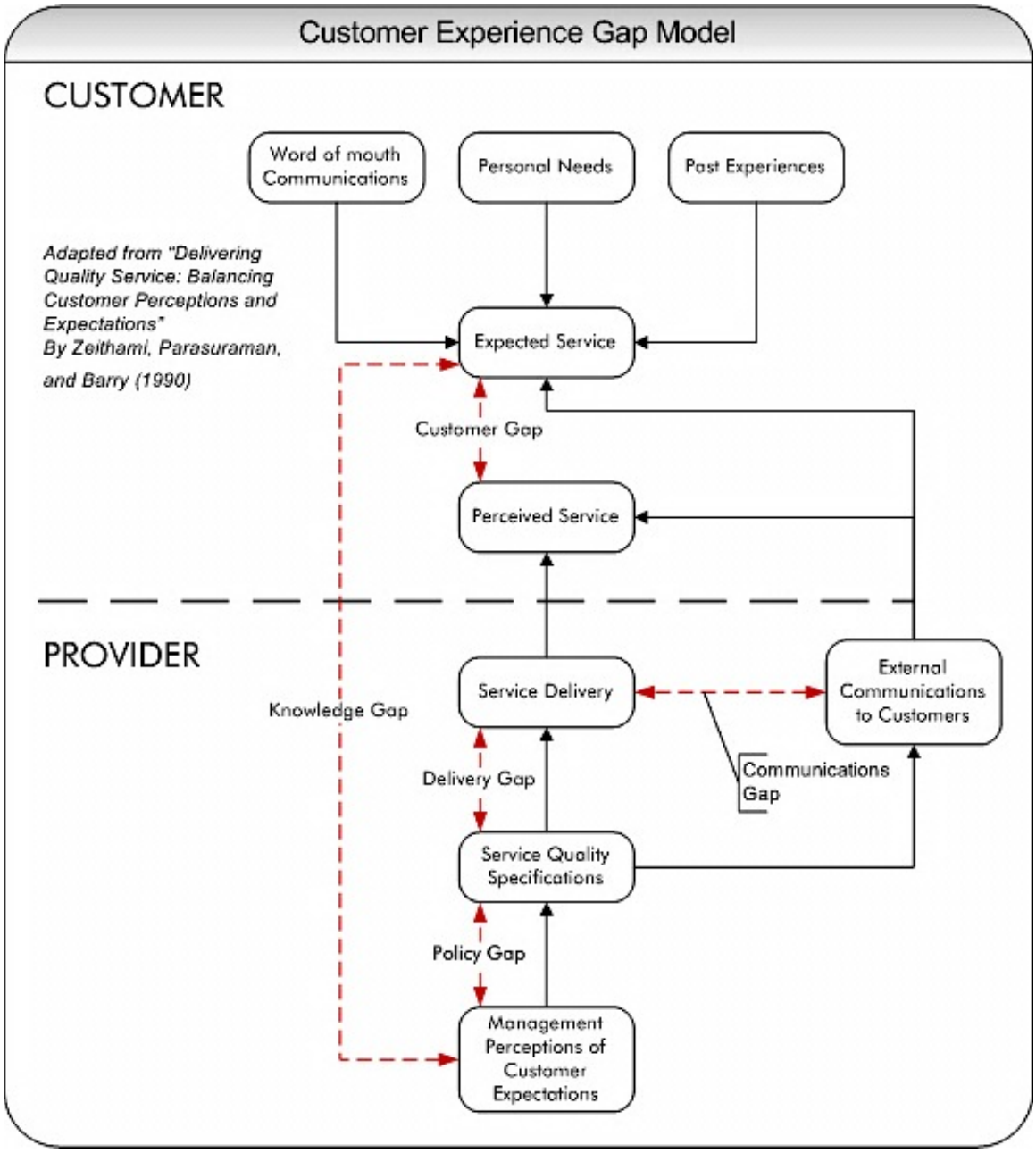


Figure 2 A Consumer Experience Gap Model

The gap between service quality specification and service delivery characterizes the Delivery Gap, which evaluates the skills of the employees. The gap is widened when employees have not been properly trained or lack knowledge of the service. With inadequate customer service from the company's employees the consumers' needs are no longer a priority, concluding in a negative perception of the company.

The fifth gap is the gap in Communication between service delivery and external communications. If the service is not performed as the organization communicates to the consumer it would, then the consumer suffers disappointment because his/her expectation was higher than the service's actual performance.

For an organization to be successful and create a relationship with its customers, management must establish the customers' expectations and deliver a service of the same standard. If gaps occur in any form then overall satisfaction of the service is lowered and changes or readjustments must be made to close the gap.

2. 2 Application of the Gap Model to this Research Project

Insight was discovered when applying *Figure 2 A Customer Experience Gap Model* to the research being conducted on recycling attitudes, behaviors, and habits of Highland Square residents. Recognized from the collected Highland Square Survey data was a Knowledge gap.

It became evident that there was a widening Knowledge Gap between Highland Square management and the residents in the complex during the primary stages of this

study—Highland Square was unaware of the consumers want and need for recycling services.

Surveys distributed through Highland Square's email list serve and shared on social media collected valuable data to analyze the primary expectations, attitudes, behaviors, and habits of the residents. It was concluded that residents want to recycle more within the complex but the services are not offered.

To close the gap, management of Highland Square could implement a recycling service to residents to fulfill their want and need to recycle. Implementing recycling services into the off-campus complex would not only help decrease the knowledge gap, but it would reduce the customer gap that is also emerging because of the lack of services. It is desired that the expectations of the residents are met, and by doing so there would be a reduction in the current gaps in the Consumer Experience Model and it would raise the perception of Highland Square within the minds of the consumer.

SECTION 3: SECONDARY RESEARCH: COLLEGE ATTITUDES AND BEHAVIORS ON RECYCLING

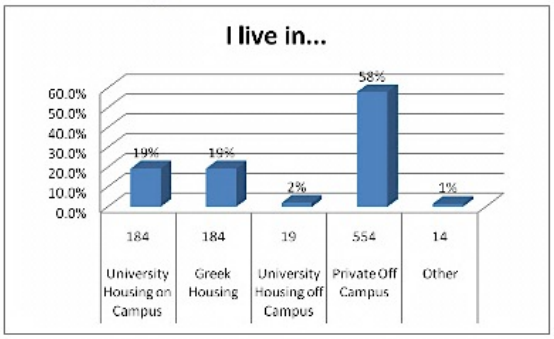
Secondary research can be used to understand general recycling attitudes and behaviors of college students. The results from the following two studies can be used to infer the recycling attitudes and behaviors of how students living off-campus at the University of Mississippi may view recycling.

3. 1 Overview of Secondary Research: University of Idaho at Moscow

This particular study was conducted by students of a college level Business course, overseen by professor Lee Tracie, at the University of Idaho at Moscow, completed in January 2011 to analyze student attitudes and behaviors towards waste minimization. Surveys were given to 21 classes, covering 11 course prefixes, and reaching 1,184 students. A total of 955 surveys were collected and studied. The breakdown by class was 121 freshmen, 256 sophomores, 255 juniors, 243 seniors, 63 super-seniors, 16 graduate students, and 1 faculty member. The data represents 10% of the total students on the UI Moscow campus.

The data collected from the survey is displayed in *Figure 3 A University of Idaho at Moscow Recycling Survey*. The results are clear that the majority of students live off campus, 58%. Although the data reveals findings for on campus recycling behaviors, the main obstacle that keeps students from recycling is not having available bins. The top four materials recycled (in order of results) are cardboard, paper, food waste, and plastics.

Students in the survey responded that increased number and visibility of bins would encourage positive recycling behavior. The data also reveals that almost 90% of students surveyed already recycled.



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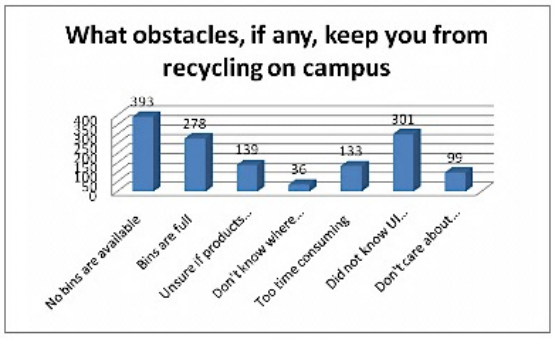

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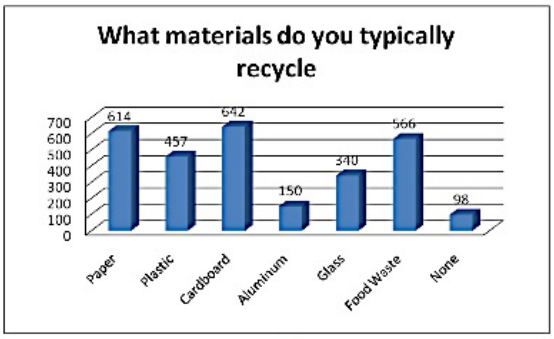

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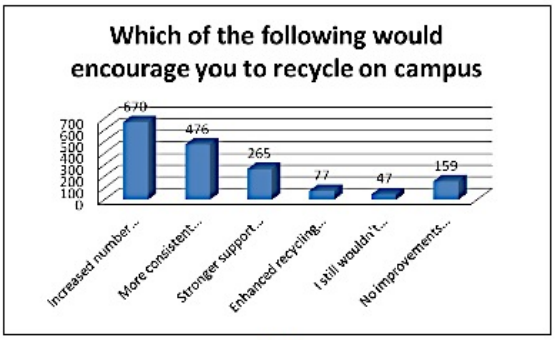

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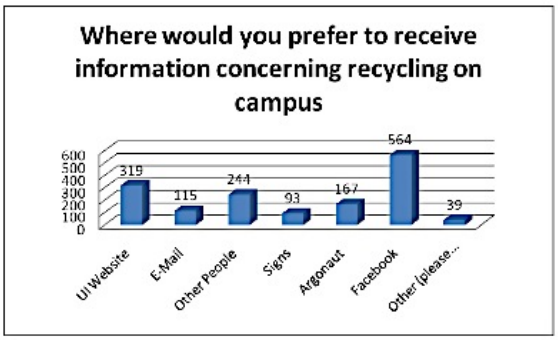

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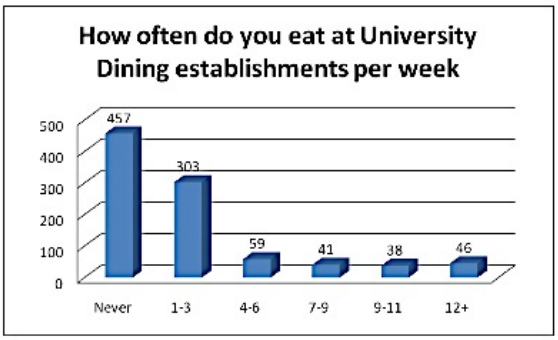

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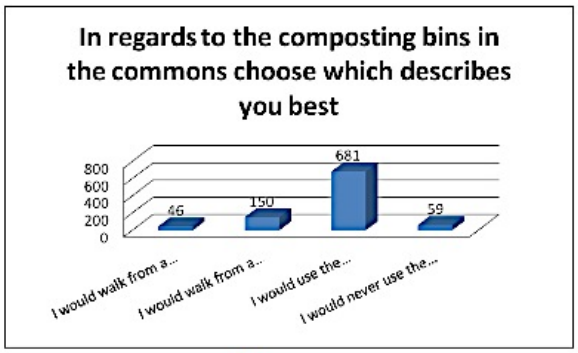

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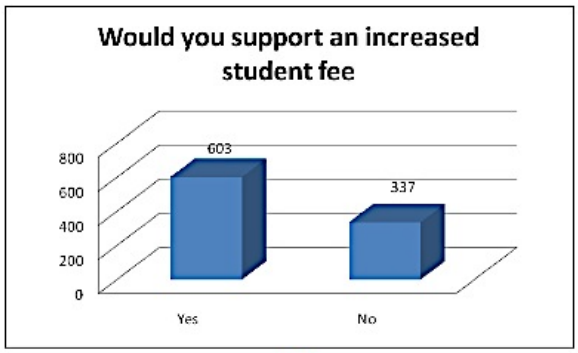

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Figure 3 A University of Idaho at Moscow Recycling Survey

Although the study was conducted in Idaho and there are limitations to the study such as cultural differences and relevancy, the results can be used in making assumptions and predictions to the University of Mississippi's college students recycling behavior. The data shows that students would be more willing to recycle if more bins were provided. Most of the students surveyed lived off campus. This supports the idea that students living off campus at the University of Mississippi are willing to recycle and would do so given the available resources.

In Highland Square there are no available recycling bins, curbside or located alongside the communal waste bin, there are no convenient places to recycle. By adding recycling bins to the complex, there would automatically be a positive response and more participation. Likewise, Oxford recycles plastics 1 and 2, cardboard, paper, food waste, all of which were reported as top items recycled by the students of UI at Moscow.

3. 2 Overview of Secondary Research: United Kingdom

The second study used to understand recycling attitudes and behaviors was from survey results collected by SITA UK, which analyzed results from more than 144 universities and more than 50,000 college students in the United Kingdom. The study found that "recycling rates improve when students move off university campus into student accommodation, mirroring a slight rise in the perceived convenience of recycling facilities in off campus student accommodations" (SITA, UK). The survey proved that 50% of students classified themselves as committed recyclers and over 30% recycled, while less than 10% don't recycle. It was noted that time and space constraints were the most common reasons for not recycling. One in three students living off campus went as far to say that they would be happy to be charged if they failed to recycle properly. Visuals representing the results of the study are displayed in *Figure 3 B United Kingdom Recycling Survey*.

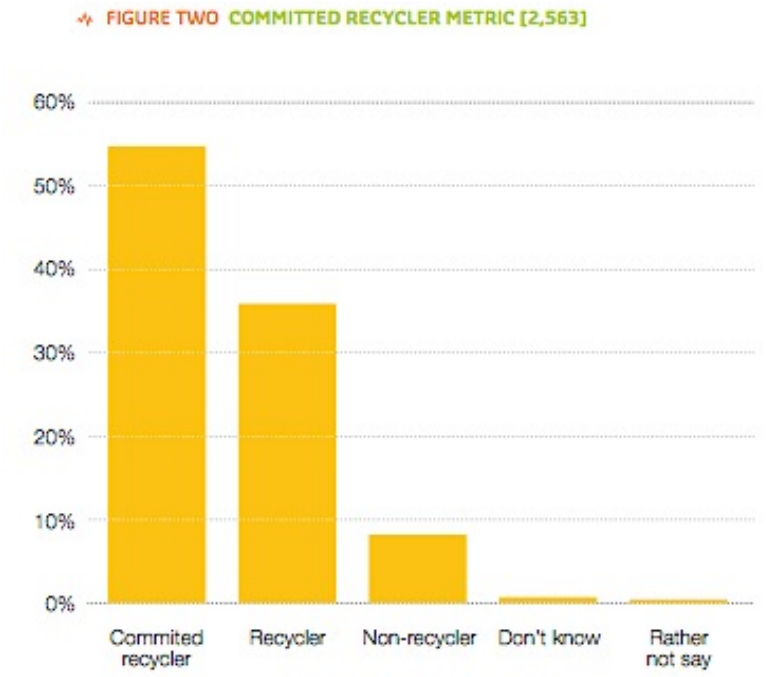

FIGURE THREE EFFORT LEVELS AND RECYCLING

Which of these statements best describes your attitude to recycling?

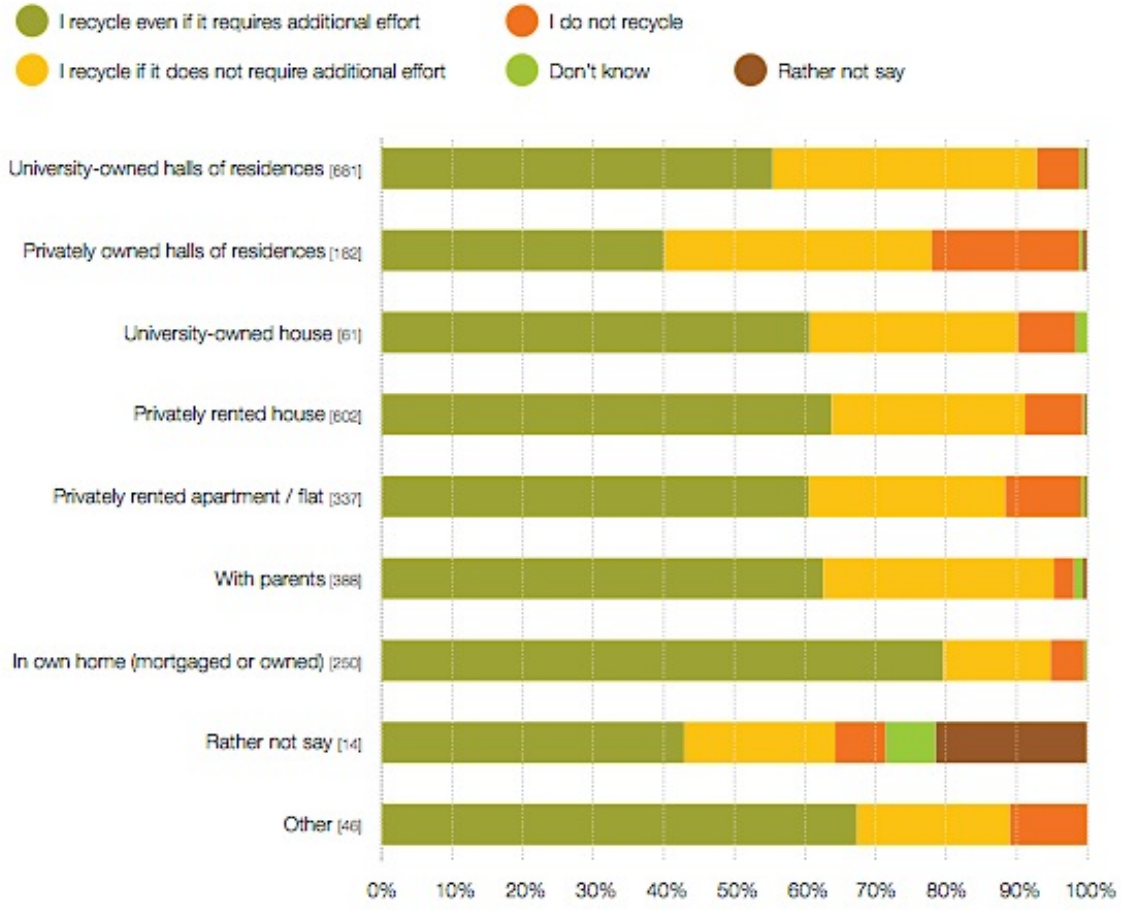

FIGURE FOUR AMOUNT RECYCLED

Which of these statements best describes how much you recycle?

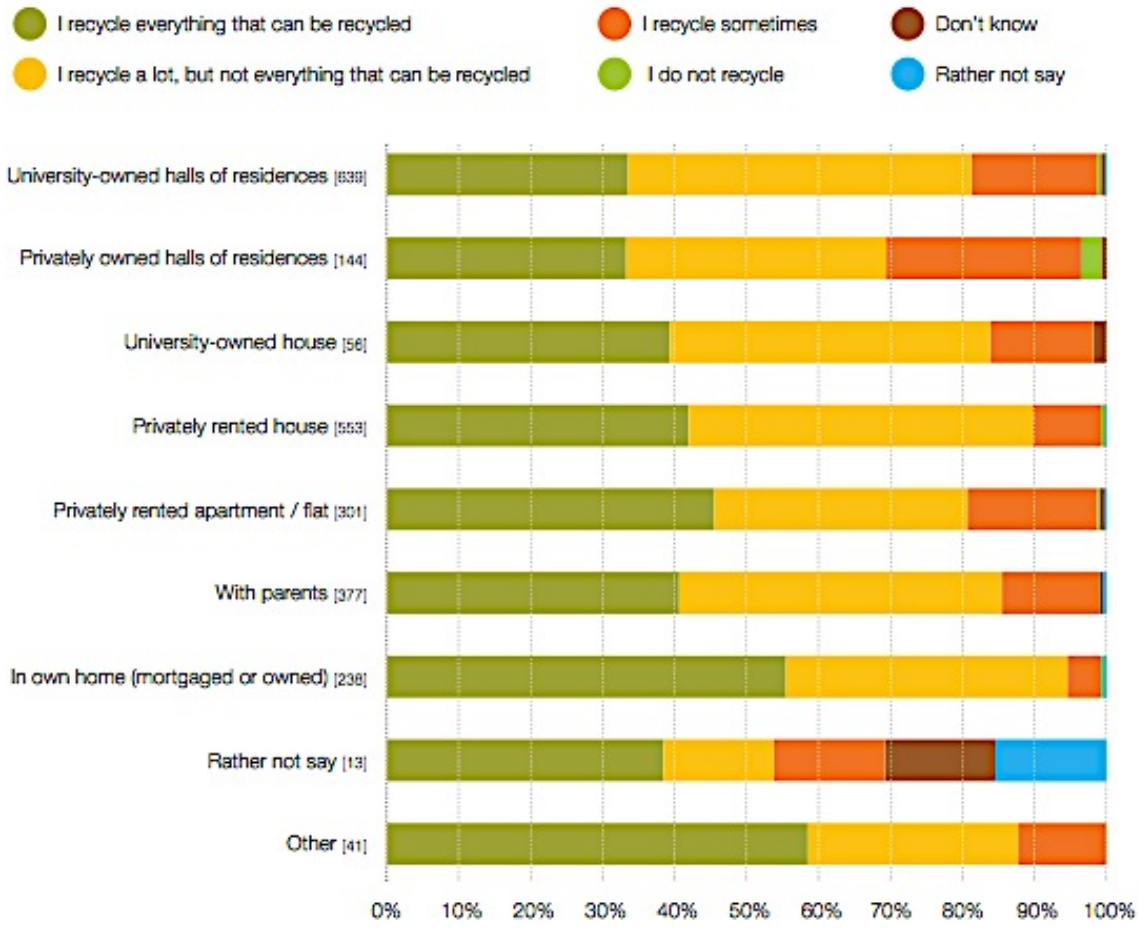

FIGURE SIX ATTITUDES TOWARDS RECYCLING

Thinking about recycling your waste, which of these statements best describes how important recycling is to you personally?

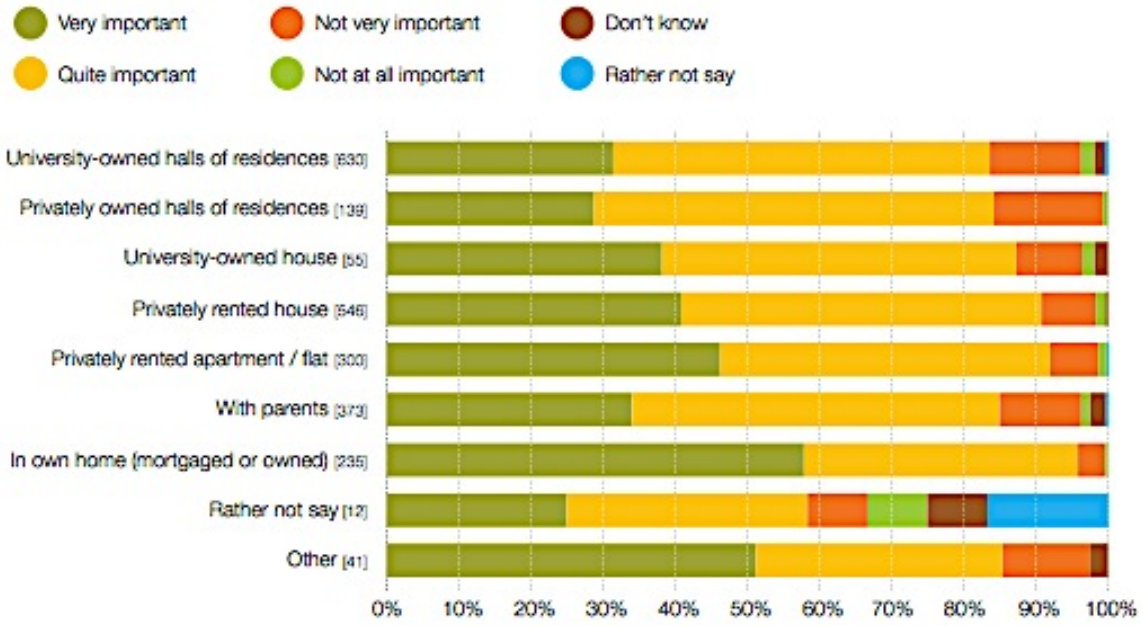

FIGURE 11 REASONS FOR RECYCLING LESS AT UNIVERSITY

If you are recycling less, please tell us why.

Reason	Count
Limits to services offered	160
More facilities elsewhere	68
Not easy	46
Influenced by other people (e.g. cannot motivate flatmates)	22
Lack of information	15
Too busy / lack of time	15
Less consumption	12
Limited by space in accommodation or in the bin	11
Someone else recycles	9
Distrust of recycling providers	2

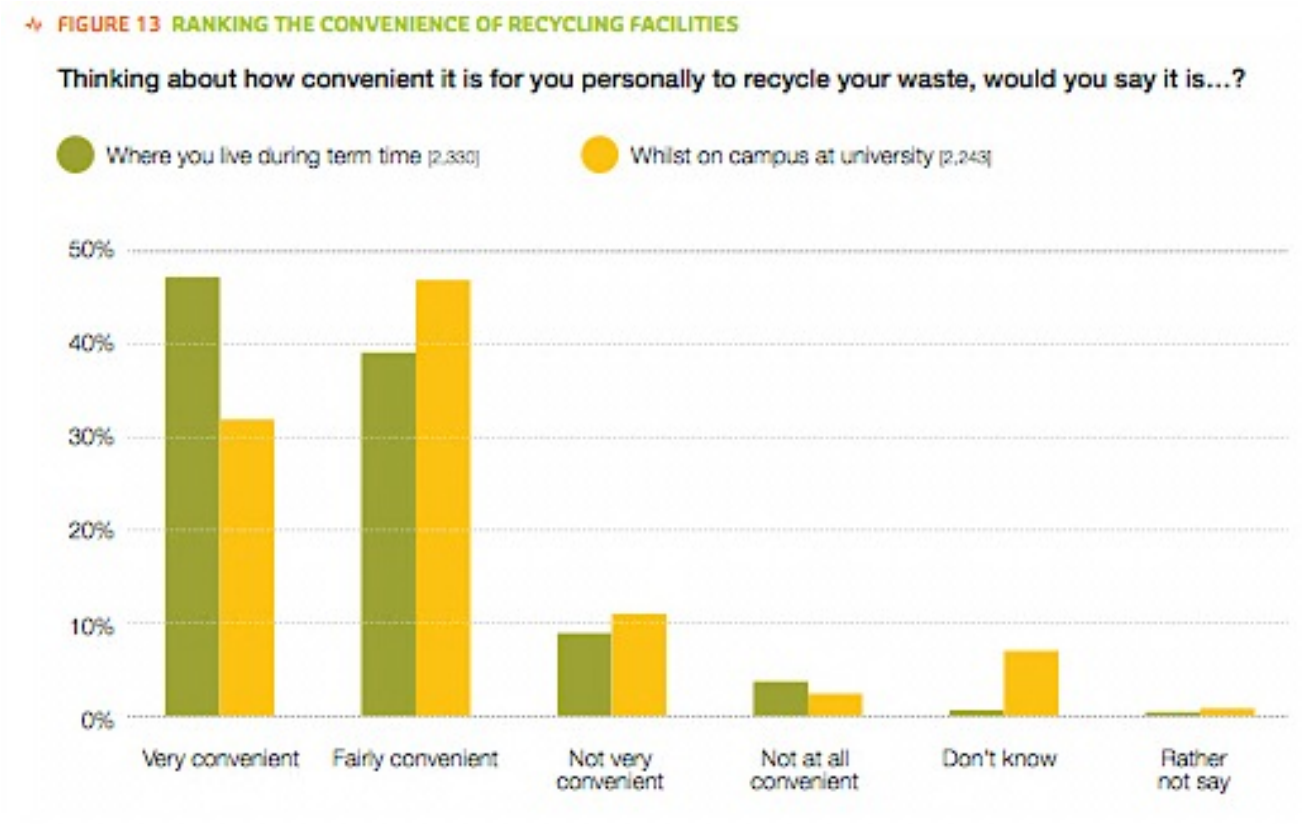

Figure 3 B United Kingdom Recycling Survey

This survey was conducted by SITA UK with a large range of students and universities participating in the study, making it creditable and reliable, however, there are cultural limitations, political limitations, and different social norms to consider when using the data to predict the attitude and behavior of students at the University of Mississippi. Despite the limitations, this research provides extensive insight into the recycling attitudes and behaviors of university students on a large scale—50,000 students.

If the data results provided from this survey were used to predict recycling attitudes and behavior in off campus living in Oxford it could be concluded that the majority of Highland Square residents would take advantage of offered recycling services. Again,

comparing the results of the UK survey to Highland Square, availability and having no facilities would be the main reasons for minimal participation rates. If recycling attitudes were to be similar, than the majority of college students would view recycling as very important and quite important, regardless of living location.

As secondary research is analyzed and compared to the conditions and factors for the Highland Square case study, there are similarities that could be drawn on recycling attitudes and behaviors. It can be concluded that if recycling amenities were offered within the living complex, residents would take advantage of the service, improving environmental conditions on a much broader scale and simultaneously the perception of the complex would improve. The statistics of residents recycling attitudes and behaviors, specifically for Highland Square, can be determined through a survey administered to all those currently residing in the complex.

SECTION 4: PRIMARY RESEARCH: OBSERVATIONAL RESEARCH

4. 1 Primary Observational Research Conducted on University of Mississippi Campus on Recycling Behavior

Primary observational research was conducted to gain a better understanding of college students recycling behavior relative to the University of Mississippi specifically. On the university campus there are often recycling bins for Paper, E-waste, Aluminum and Plastic connected to the waste bin. Watching University of Mississippi students dispose of their waste into a joint waste and recycling facility, shown in *Figure 4 A University of Mississippi Collection Bin*, gives a good prediction of recycling behavior. Analyzing how a student reacts when both waste and recycling bins are available provides insight and valuable data into the trends of Ole Miss student's disposal habits.

Four different studies were conducted, all occurring at the same location and time. The hidden observation was conducted in Lamar Hall on the University of Mississippi campus.

Lamar Hall provides classrooms for a variety of subjects including, business, journalism, IMC, accounting, humanities, etc. which provides a diverse group of students in one area. Lamar is also known for its food market, P.O.D., in the lobby, which draws in

heavy student traffic. The lobby is designed as an open area with eating tables, study areas, and a lounge allowing many activities to take place. The figure below, *Figure 4 B Lamar Hall Location*, shows part of the Ole Miss campus, representing the location of Lamar by the red star.

Figure 4 A University of Mississippi Collection Bin

Figure 4 B Lamar Hall Location

The observational research was conducted on average between 12:50pm-2:00pm on September 24, September 26, September 29, and October 1 of 2014. This allowed for two class changes to occur during the viewing period. This time was also considered due to heavy lunchtime traffic within the building, optimizing the total amount of students that would be observed.

The goal of the observer was to remain hidden and unnoticed from the crowd of students entering and exiting the building. To achieve this goal, the observer took on the

persona of similar students in the area, mimicking their actions and behavior. The observer appeared to be studying and having a snack in the lobby so as not to draw attention to the observation and potentially influence behavior. A computer was open, backpack was present, a notebook was in hand with paper and pen, helping the observer remain discrete.

The observer studied the recycling actions of the college students in the lobby as they disposed of waste in the Lamar lobby. Located by the entrance was a waste and recycling collection bin. As students disposed of items, it was observed what they were throwing away and whether is was in the appropriate bin. It was documented whether the student threw away an item in the right or wrong bin. Gender was also documented to see if there was any correlation.

There were no major limitations to the observation.

Images from the observational studies are displayed below in *Figure 4 C Lamar Hall Observational Research*. The images make the location of the recycling bins clearer in comparison with the main entrance of the building and how busy the corridor can get during class changes and lunch.

Figure 4 C Lamar Hall Observational Research

The results of the observational research are displayed in the following records, Table 1 *University of Mississippi Observational Research*.

September 24, 2014
1:00-2:15pm

Bin	Waste	Paper	E-waste	Aluminum & Plastic
Item was put in the RIGHT bin.	11	2	0	3
Item was put in the WRONG bin.	5	0	0	0

September 26, 2014
12:50-2:15pm

Bin	Waste	Paper	E-waste	Aluminum & Plastic
Item was put in the RIGHT bin.	15	3	0	6
Item was put in the WRONG bin.	0	1	0	1

September 29, 2014
12:50-2:00pm

Bin	Waste	Paper	E-waste	Aluminum & Plastic
Item was put in the RIGHT bin.	11	3	0	7
Item was put in the WRONG bin.	1	0	0	0

October 1, 2014
12:50-2:00pm

Bin	Waste	Paper	E-waste	Aluminum & Plastic
Item was put in the RIGHT bin.	12	1	0	6
Item was put in the WRONG bin.	0	0	0	1

Totaled Results

Bin	Waste	Paper	E-waste	Aluminum & Plastic
Item was put in the RIGHT bin.	49	9	0	22
Item was put in the WRONG bin.	6	1	0	2
Totaled numbers	55	10	0	24
Percentage recycled properly.	89%	90%	0%	92%

Table 1 University of Mississippi Observational Research

When the results are analyzed it is concluded based on the sample, college students at the University of Mississippi properly dispose of an item 90.33% of the time when recycling bins are available. Of all the items that were thrown in the Waste bin, 89% of them were in fact waste and supposed to be disposed of in that bin. Of all the items thrown in the Paper bin, 90% of them were actually paper products. Only one of the ten items put in the bin was not paper. Nothing was observed being discarded into the E-waste bin. Pertaining to the Aluminum and Plastic bin, 92% of the items thrown in were correctly placed. There were only 2 items that were put in this bin that should have been placed elsewhere.

If there were no recycling bins present and everything was put in the waste bin (based only on the data collected for what was placed in the right bin), 80 items would have been in the waste bin, 49 of them there correctly, 31 items that should have been recycled. That

would mean that 39% of the waste could have been recycled and 61% of the waste was properly disposed of.

College students tend to recycle more often when a recycling bin is present and conveniently located. It was noted that when items were placed in the wrong bin the student was either trying but lacked the proper knowledge of what could enter a bin, or the student was merely not paying attention to their actions.

If college students in off campus housing, such as Highland Square, had the opportunity to recycle, it could be predicted that similar statistics would result, and items would be properly disposed of. This would eliminate the amount of waste collected and promote increased environmental benefits that result from recycling.

SECTION 5: PRIMARY RESEARCH: SURVEY ADMINISTERED TO UNIVERSITY OF MISSISSIPPI STUDENTS

Observational research was previously conducted on the UM campus. The objective of the survey administered to University of Mississippi students was to gain a better understanding of the student body's recycling attitudes and behaviors on and around the campus.

The survey's purpose was to analyze the expectations, attitudes, behaviors, wants and needs of college students at the University of Mississippi and to gain new information, how people feel toward recycling and why, students intentions and values toward recycling, and other information that could not be learned through the collection of secondary information or observational research. This information would provide unique data and statistics about the University of Mississippi's student body.

5. 1 The Survey Administered

The survey was distributed through Facebook, October 27,2014—October 31, 2014. The conductor of the research survey sent the link out on her personal Facebook page as well as shared the link in Facebook groups, including Ole Miss Class of 2015, and Kappa Sisters Delta Rho.

The survey link was disseminated to UM students via social media networks. Respondents took the survey and shared it on their personal timelines and groups. A number of respondents shared the survey and thereby helped the survey reach a wider span of UM students.

Social Network Exposure Information	**Data**
Facebook Shares	30
Personal Facebook friends that also attend the University of Mississippi	300
Ole Miss Class of 2015, Facebook Group	829
Kappa Sisters Delta Rho, Facebook Group	454
Total amount of people who had the opportunity to take the survey	1, 583
Surveys Started	151
Surveys Completed	111
Approximate Response Rate	14.26%

Table 2 University of Mississippi Survey Administration Information

5. 2 Results of Survey Administered to University of Mississippi Students

1. Do you attend the University of Mississippi

#	Answer		Response	%
1	Yes		130	91%
2	No		13	9%
	Total		143	100%

2. What is your classification?

#	Answer		Response	%
1	Freshman		45	36%
2	Sophomore		18	14%
3	Junior		24	19%
4	Senior		35	28%
5	Super Senior		2	2%
6	Graduate Student		2	2%
8	Other		0	0%
	Total		126	100%

3. What gender are you?

#	Answer		Response	%
1	Female		119	94%
2	Male		7	6%
	Total		126	100%

4. What political party do you most closely relate to?

#	Answer		Response	%
1	Democratic		7	6%
2	Independent		17	14%
3	Republican		95	76%
4	Other		6	5%
	Total		125	100%

5. Which of the following responses best describes your recycling behavior?

#	Answer		Response	%
1	I have always recycled		27	22%
2	I recycled prior to enrollment at the University of Mississippi but not after arrival to the university		40	33%
3	I did not recycle prior to attending the University of Mississippi but did after arrival to the university		7	6%
4	I have never recycled		11	9%
5	I would like to recycle more but recycling services are not available		33	27%
6	Other		4	3%
	Total		122	100%

6. What state do you consider home?

Text Response
Arizona
Arkansas
Arkansas
ARKANSAS
Arkansas
California
California
California
Colorado
Connecticut
Florida
Florida
florida
GA
GA
GA
georgia
Georgia
Georgia
Georgia
Georgia
Georgia
Georgia
Georgia
Illinois
Indiana
Kentucky
Louisiana
Louisiana
louisiana
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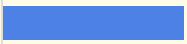
Texas
texas
TN
VA
Virginia
Virginia
Virginia

Virginia
Washington D.C.

7. What method of recycling is offered in your hometown?

#	Answer		Response	%
1	Curbside Service		86	71%
2	Communal Recycling Dumpster		13	11%
3	Not Sure of the recycling services offered		15	12%
4	No recycling services are offered		5	4%
5	Other		2	2%
	Total		121	100%

8. Which of these statements best describes your attitude to recycling in your hometown?

#	Answer		Response	%
1	I recycle even if it requires additional effort		45	38%
2	I recycle if it does not require additional effort		57	48%
3	I do not recycle		14	12%
4	Other		2	2%
	Total		118	100%

9. In your hometown, how often do you recycle the following?

#	Question	Never	Sometimes	Often	Always	Recycling services not available	Total Responses	Mean
1	Aluminum	11	21	19	42	1	94	3.01
2	Cardboard	11	18	23	42	0	94	3.02
3	Food Waste	50	22	9	9	4	94	1.88
4	Glass	17	22	14	36	5	94	2.89
5	Paper	7	23	24	39	1	94	3.04
6	Plastic	2	16	26	49	1	94	3.33

10. What obstacles, if any, keep you from recycling on the University of Mississippi campus?

#	Answer		Response	%
1	No bin is available		41	38%
2	Bin is full		15	14%
3	Unsure if the product is recyclable		23	21%
4	Don't care about recycling		7	6%
5	Other		3	3%
7	It is not convenient		36	33%
8	Don't know where the closest bin is		49	45%

11. Which of these statements best describes your attitude to recycling on the University of Mississippi campus?

#	Answer		Response	%
1	I recycle even if it requires additional effort		22	21%
2	I recycle if it does not require additional effort		66	62%
3	I do not recycle		18	17%
4	Prefer not to answer		1	1%
	Total		107	100%

12. On the University of Mississippi campus how often do you recycle the following?

#	Question	Never	Sometimes	Often	Always	Total Responses	Mean
1	Aluminum	40	21	19	6	86	1.90
2	Cardboard	38	26	13	9	86	1.92
3	Electronic Waste	58	18	7	3	86	1.48
4	Food Waste	60	20	6	0	86	1.37
5	Paper	25	34	19	8	86	2.12
6	Plastic	14	30	29	13	86	2.48

13. Where do you reside in Oxford, MS?

#	Answer		Response	%
1	University dormitory		43	41%
2	Off campus in a an apartment or condominium complex (please identify by the name of the complex, e.g. Highland Square, Retreat, etc.)		34	33%
3	Off campus in a privately rented house		21	20%
4	Other		6	6%
	Total		104	100%

Off campus in a an apartment or condominium complex (please identify by the name of the complex, e.g. Highland Square, Retreat, etc.)	Other
Highland Square	On campus sorority house
Highland Square	Sorority house
highland squaure	sorority house
Highland Square	Sorority house
Highland Square	Sorority house
607 south	Sorority house
Retreat	
Molly bar	
Molly Barr Trails	
Highland Square	
Acadia Cottages	
Bramlett Blvd. complex	
Highland Square	
High Cotton	
Molly Barr Trails	
Highland square	
Molly Barr Trails	
Brighton Village	
Faulkner Flats	
molly barr	
Molly Barr	
Molly Barr trails	
Molly barr	
Highland Square	
Molly Barr	
Brighton Village	

14. Which recycling service is offered in your current living location?

#	Answer		Response	%
1	Curbside Recycling		4	4%
2	Communal recycling dumpster		14	13%
3	Not sure of the recycling services offered		52	50%
4	No recycling services are offered		33	32%
5	Other		1	1%
	Total		104	100%

15. What obstacles, if any, keep you from recycling in your current living location?

#	Answer		Response	%
1	No recycling services are available		48	47%
2	Recycling bin is inconveniently located		18	18%
3	Recycling bin is full		15	15%
4	Unsure if the product is recyclable		9	9%
5	Don't care about recycling		7	7%
6	Other		5	5%
8	It is not convenient		23	23%
9	Don't know where the closest bin is		27	26%

16. Which statement best describes your attitude to recycling in your current living location?

#	Answer		Response	%
1	I recycle even if it requires additional effort		12	12%
2	I recycle if it does not require additional effort		33	32%
3	I do not recycle		57	56%
4	Other		0	0%
	Total		102	100%

17. In your current living location, how often do you recycle the following?

#	Question	Never	Sometimes	Often	Always	Prefer not to answer	Total Responses	Mean
1	Aluminum	20	10	7	7	0	44	2.02
2	Cardboard	18	8	11	7	0	44	2.16
3	Electronic Waste	31	7	5	1	0	44	1.45
4	Food Waste	30	8	5	1	0	44	1.48
5	Paper	17	12	8	7	0	44	2.11
6	Plastic	16	10	7	11	0	44	2.30

18. Which of the following would encourage you to increase your recycling participation? Choose all that apply.

#	Answer		Response	%
1	Increased availability of recycling bins		82	82%
2	Recycling campaigns in the area		20	20%
3	Incentives to recycle		37	37%
4	Curbside services offered		56	56%
5	Communal recycling dumpster offered		40	40%
6	Other		1	1%

19. List in rank order the method of communication you would most likely receive recycling messages from companies or organizations.

#	Answer	1	2	3	4	5	6	7	Total Responses
1	Email	48	23	9	8	10	1	0	99
2	Facebook	10	39	24	22	2	2	0	99
5	Flyers/posters	11	16	12	7	32	21	0	99
3	Instagram	2	13	28	23	21	12	0	99
7	Other	0	0	0	0	0	1	98	99
6	Text message subscription services	23	5	10	8	9	43	1	99
4	Twitter	5	3	16	31	25	19	0	99
	Total	99	99	99	99	99	99	99	-

20. What reasons motivate you to recycle? 1 being not at all and 7 being highly motivates.						
#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	I am socially responsible.	1.00	7.00	5.21	1.61	77
2	I want to conserve the environment.	1.00	7.00	5.66	1.46	76
3	My friends and family recycle.	1.00	7.00	5.00	1.86	71
4	I want to decrease the amount of waste in landfills.	1.00	7.00	5.70	1.35	71
5	It's the right thing to do.	1.00	7.00	5.68	1.32	73
6	I believe recycling can boost the economy and create jobs.	1.00	7.00	4.46	1.79	68
7	I want to make the world a better place.	3.00	7.00	5.81	1.31	69

Figure 5 A University of Mississippi Recycling Survey Results

5. 3 Analysis of Results Based on Classification

When analyzing the results from the survey shown in *Figure 5 A University of Mississippi Recycling Survey Results*, respondents completing the survey showed a breakdown by classification of 36% Freshmen, 14% Sophomores, 19% Juniors, 28% Seniors, 2% Super Senior (additional semesters or years after four years to complete undergraduate

degree), and 2% Graduate Students. The breakdown is displayed in *Figure 5 B Classification of University of Mississippi Survey*.

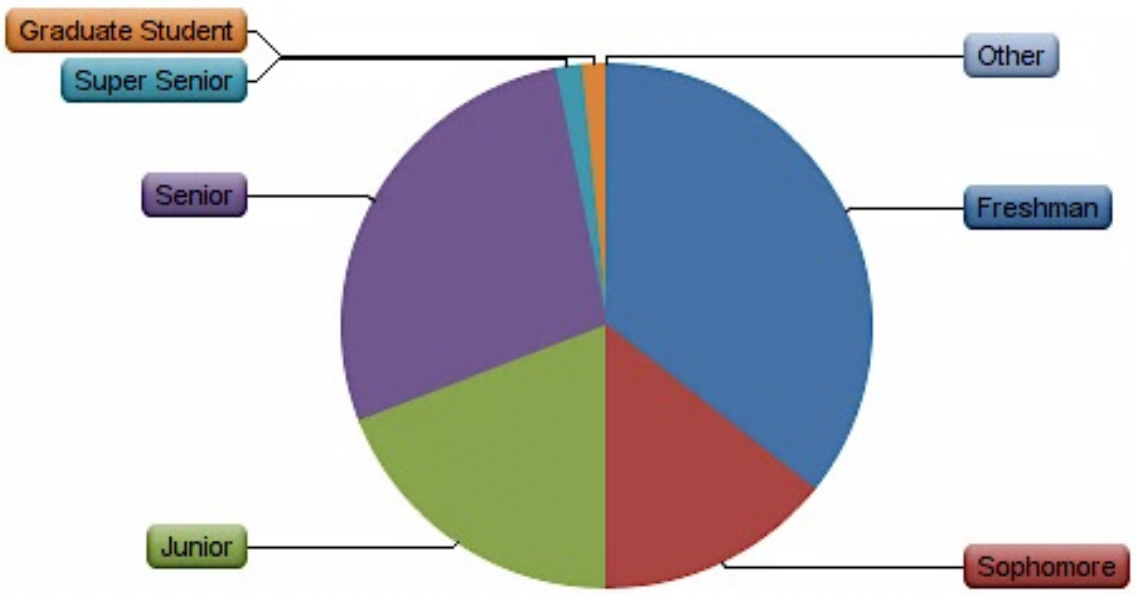


Figure 5 B Classification of University of Mississippi Survey

Through the survey software used to conduct and administer the survey, Qualtrics, filters and crosstabs were applied to the results to better understand and analyze responses. In the following analysis, a filter was placed on each classification to observe trends, attitudes and behaviors between grade levels.

Freshmen had the highest response rate, accounting for 36% of total respondents. All freshman respondents were female. The political breakdown was as follows: 82% Republican, 14% independent, 2% Democrat, and 1% other. Recycling behavior was broken down into 36% recycled prior to enrollment but not after arrival to UM, 25% always recycle, 18% have never recycled, 16% would like to recycle more but recycling services are not available, and 5% reported that they did not recycle prior to university but started after

arrival. It can be concluded from the data the majority of freshman students currently recycle, have recycled, or would like to recycle more.

Based on the freshman's hometown, the collective data reported 54% recycle if it does not require additional effort, 37% recycle even it requires additional effort, and 10% do not recycle in their hometown. Aluminum, cardboard, glass, paper, and plastic are most often 'always recycled'.

On the University of Mississippi campus, freshmen report that obstacles keeping them from recycling include 42% don't know where the closest bin is, 39% say no bin is available, 39% say it is not convenient, 29% say the bin is full, 16% are unsure if the product is recyclable, and a small 5% admit to not caring about recycling. Freshman attitude for on campus recycling at the university is broken down into 54% recycle if it does not require additional effort, 24% are not recycling on campus, and 22% recycle even it requires additional effort. The statistics show that materials recycled on campus including aluminum, cardboard, E-waste, food waste, paper and plastic are mostly not, or only 'sometimes', recycled. Of the freshmen, 97% resided in a university dormitory; only one respondent lived in a privately rented home.

After the analysis of freshmen based on their current living location, it was revealed that more than half of freshman students were not aware of recycling services offered. In fact, 54% were not sure of the recycling services offered, 31% reported being aware of communal recycling dumpster, 6% reported curbside recycling as well as 6% had no service offered, and 3% answered other writing, "there are paper and plastic bins in the dorms". Obstacles that kept freshman students from recycling in their current living location are displayed in *Figure 5 C Freshman Recycling Obstacles in Current Living Location,* and

included not knowing where the closest bin was 35%, recycling bin being full 32%, no recycling services available, bin being inconveniently located, or not being convenient, all 21%, unsure if the product was recyclable 12%, and not caring about recycling 9%.

Figure 5 C Freshman Recycling Obstacles in Current Living Location

Despite the obstacles freshmen faced in their current living location, 47% recycled if there was no additional effort, 41% were not recycling, and 12% recycled even if it required additional effort. To increase participation, 79% would respond to an increased availability of recycling bins, 42% would be encouraged to recycle by incentives, 27% were in favor of communal dumpsters, 24% curbside services, and 15% would be encouraged by a recycling campaign in the area.

When receiving information about recycling messages, the freshman class rank the methods in the following order: email, Facebook, Instagram, Twitter, Flyers/posters, text message subscription services, other.

The top three motivational reasons for recycling for the freshmen included the desire to decrease the amount of waste in landfills, make the world a better place, and conserve the environment.

When the filter was adjusted to calculate the results of sophomores, there was a shift in answers and percentages of recycling behavior and attitude. There were 18 sophomore respondents; of those, 16 were female and 2 were male. The political breakdown was as follows: 67% republican, 11% democratic, 11% independent, and 11% other. Overall recycling behavior was described as 35% recycled prior to UM but not after arrival, 29% would like to recycle more but recycling services are not available, 18% have always recycled, and 6% did not recycle prior to university but started after arrival, have never recycled, or other, "I sometimes recycle".

As the sophomore class was examined in regard to hometown, 71% had curbside service, 12% were not sure of the recycling services offered, and 6% had communal dumpsters, had no recycling service, and other, written in, "the city recycles for us".

On the Mississippi campus, obstacles that kept the sophomore class from recycling included 41% said it was not convenient, 35% said no bin was available, 35% didn't know where the closest bin was, 35% were unsure if the product was recyclable, 18% didn't care about recycling, and 12% said the bin was full. When on campus, 76% of sophomores recycled if it did not require additional effort, 18% recycled even if it required additional effort, and 6% did not recycle on campus.

Based on current living locations, 94% of sophomores lived in an off campus apartment or condominium complex and 6% lived in a privately rented house; 53% had no recycling service offered and 47% were not sure of the services offered. Obstacles that kept

sophomores from currently recycling included 71% that said no recycling services were available, 24% didn't know where the closest bin was, 12% didn't care about recycling or it was not convenient, and 6% said the recycling bin was inconveniently located, it was full, or they were unsure if the product was recyclable. With services not being offered, 59% of the class was not recycling, 35% were recycling with no additional effort and 6% recycled even if it required additional effort. To increase participation rates in recycling, 75% said they would respond to an increased availability in recycling bins, 56% to curbside recycling offered, 31% to communal dumpsters or incentives to recycle, and 25% would respond positively to recycling campaigns. The sophomores' preference to receive information remained about the same as the freshmen: email, Facebook, Instagram, Twitter, flyers/posters, and text message subscription services. The top three motivators for recycling included the desire to conserve the environment, make the world a better place, and decrease the amount of waste in landfills.

Again, the filter was adjusted, to display the results for the junior class. However, as it was noticed in the comparison of the freshman and sophomore classes, there were no drastic changes in recycling attitude or behavior, the majority of students were in favor of recycling, there were just obstacles that kept them from performing or carrying out the action.

There were 24 junior participants, 23 were females and 1 was male. Of those, 75% reported being Republican, 17% independent, and 8% were Democrats. Overall recycling behavior was as follows: 33% wanted to recycle more but recycling services were not available, 25% had always recycled and 25% recycled prior to enrollment at UM but had not after arrival, 8% did not recycle before university but started to after arrival, and 4% both had

never recycled or had reported ‘other’ which suggested they recycled at home but not while they lived in Oxford because there was no way to at their current living location.

Based on the junior’s hometown recycling methods, 75% were offered curbside recycling, 17% were not sure of the recycling services offered, 4% used a communal dumpster and another 4% reported ‘other’, only being offered recycling for aluminum cans. Hometown attitudes were favorable for recycling, 48% recycled even if it required extra effort, 43% recycled if it did not require additional effort, and 9% did not recycle. Aluminum, cardboard, glass, paper and plastic were most often ‘always’ recycled.

On the University of Mississippi campus, 57% recycled if there was no required additional effort, 24% did not recycle, and 19% recycled even if it required additional effort. Junior students were kept from recycling on campus by obstacles that included 48% not knowing where the closest bin was, 43% said no bin was available, 24% admitted it was not convenient, 14% were unsure if the product was recyclable, 5% either didn’t think about recycling or the bin was full. Of the items that could be recycled on campus, which included aluminum, cardboard, E-waste, food waste, paper and plastic, the majority of juniors ‘never’ recycled the product.

When the junior class was broken down by current living location, 40% lived in a university dorm, 25% lived off-campus in an apartment or condominium complex, 25% lived in a sorority house, and 10% lived in an off-campus privately rented house. 45% of the junior participants were either unsure of the recycling services offered in their current living location or knew there was no service offered, 10% had a communal recycling dumpster. Obstacles that kept people from recycling in their current location included no recycling services available 58%, recycling bins were inconveniently located 26%, it was not

convenient, didn't know where the closest bin was and other were all ranked at 16%, and the recycling bin was full or unsure if the product was recyclable accounted for 11%. The majority of juniors lived with none, or unsure, recycling services, 58% were not currently recycling, while 32% recycled if there was no additional effort and 11% recycled even if it required additional effort. Juniors were not recycling products eligible to be recycled in Oxford—the cause can be linked to the lack of services offered. The following bar graph, *Figure 5 D Junior Recycling Encouragements in Current Living Location*, shows the results of what would encourage recycling participation among the junior class, 89% would be encouraged if there were an increased availability of recycling bins, 84% if curbside recycling was implemented, 37% if communal dumpsters were offered, 26% were in favor of incentives, and 11% would respond to recycling campaigns in the area.

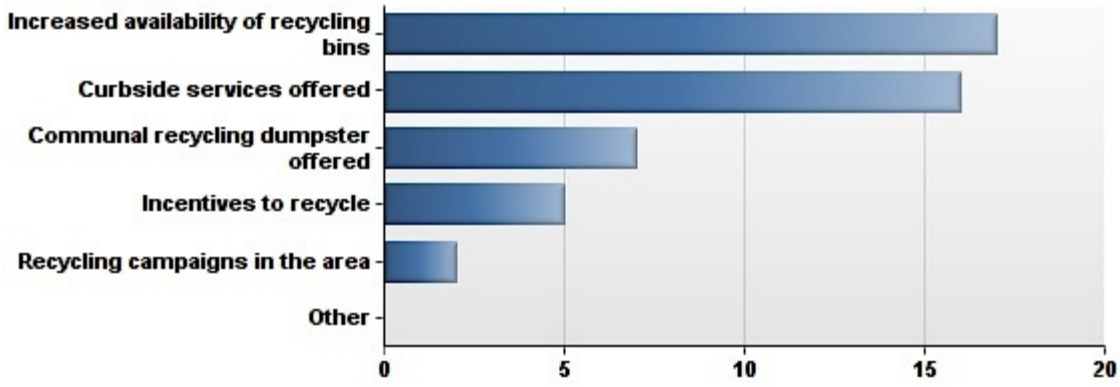


Figure 5 D Junior Recycling Encouragements in Current Living Location

The method in which juniors would receive recycling information remains the same as the sophomores: email, Facebook, Instagram, Twitter, flyers/posters, and lastly text message subscriptions. The top three motivations to recycle for the junior class included a

desire to conserve the environment, do the right thing, and the want to decrease the amount of waste in landfills.

Seniors represented the fourth classification: total there were 35 participants, 32 were female and 3 were male. The political break down consisted of 71% Republican, 14% independent, 9% said other, responding libertarian and moderate and 6% responded Democrat. General recycling behavior was recorded for the seniors as follows: 35% recycled prior to enrollment at UM but not after arrival, 35% would like to recycle more but recycling services were not offered, 15% had always recycled, 6% did not recycle prior to university but started after arrival, 6% reported other, and 3% had never recycled, shown in *Figure 5 E Overall Senior Recycling Behavior*.

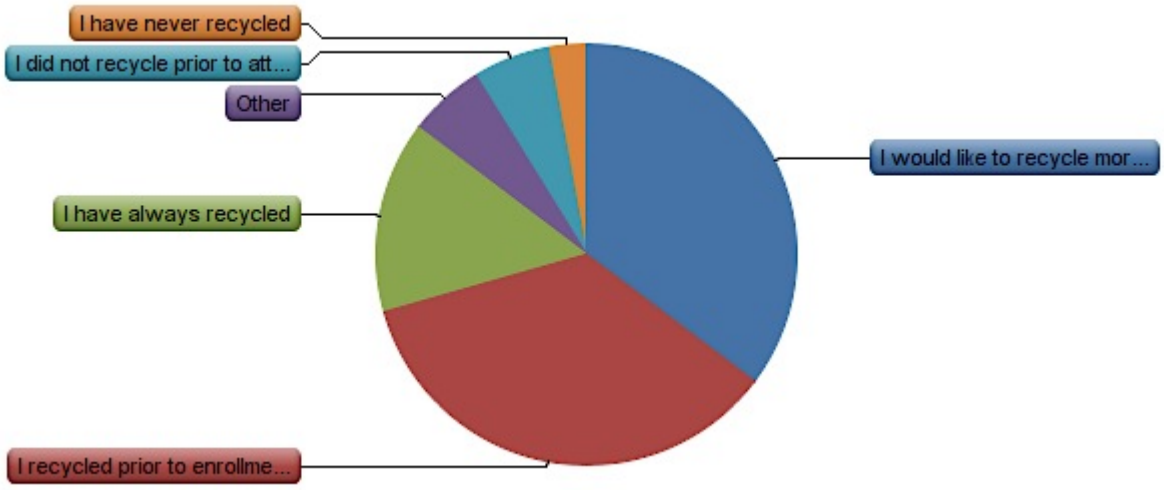


Figure 5 E Overall Senior Recycling Behavior

Based on methods of recycling in hometown, seniors reported that 74% had curbside services, 12% had communal recycling dumpsters, 12% were not sure of the services offered in their hometown, and 3% had no recycling services. Hometown recycling attitude was favorable—47% recycled if there was no additional effort required, 35% recycled even if

additional effort was required, 12% did not recycle, and 6% said other, stating “I do not recycle because my dad does not believe in doing so” and “I recycle if it doesn’t require additional cost”. Aluminum, cardboard, glass, paper, and plastic were most often ‘always’ recycled in one’s hometown.

In relation to seniors recycling attitude and behaviors on the University of Mississippi’s campus, 66% recycled if there was no additional effort, 21% recycled even if there was additional effort involved, 10% did not recycle and 3% preferred not to answer. Obstacles that kept seniors from recycling included 52% not knowing where the closest bin was, 34% reported no bin was available, 28% said it was not convenient, 24% were unsure if the product was recyclable, 7% didn’t care about recycling or chose to answer other and 3% found conflict when the bin was full. Most items that were recyclable were not being disposed of properly or were only sometimes being placed in the recycling bins.

The majority of seniors were living off-campus—48% lived in privately rented houses, 45% lived in off-campus apartment or condominium complexes, 3% lived in the university dorm, as well, 3% lived in a sorority house. In their current living location, 52% were not sure of the recycling services offered, 45% had no recycling service offered, and only 3%, 1 person, was offered curbside recycling. Obstacles that kept the senior class from recycling included not having recycling services available 59%, it was not convenient 34%, not knowing where the closest bin was 24%, recycling bin was inconveniently located 17%, unsure if the product was recyclable, didn’t care about recycling and other all stood at 7%, and the recycling bin being full accounted for 3%.

Of the seniors that responded, 69% were currently not recycling, 17% were recycling if it did not require additional effort, and 14% were recycling even if it required additional

effort. Methods to encourage recycling in one's living location included 83% who wanted increased availability of recycling bins, 72% curbside recycling services, 66% communal recycling dumpster, 38% incentives, 24% recycling campaigns, and 3% said other, and wrote in "I do not want to recycle", shown in *Figure 5 F Senior Recycling Encouragements in Current Living Location*.

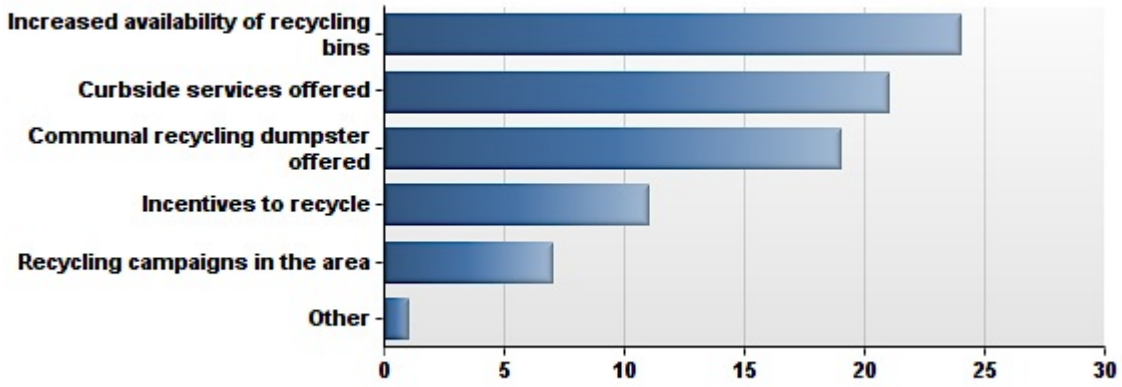


Figure 5 F Senior Recycling Encouragements in Current Living Location

To receive recycling information, seniors ranked methods in the following order: text message subscription, email, Instagram, Facebook, Twitter, flyers/posters, other. Motivation for seniors stemmed from wanting to make the world a better place, wanting to do the right thing, and wanting to decrease the amount of waste in landfills.

Two super seniors, or undergraduates beyond four years, completed the survey, one was male and one was female, both were Republican. One reported to always recycling while the other reported to wanting to recycle more but services were not available.

Based on hometown statistics for the super seniors, communal recycling dumpsters were available for one respondent and the other was unsure of the recycling services offered.

The results revealed one participant always recycled even if additional effort was required while the other did not recycle.

On the University of Mississippi campus, reasons for not recycling included no available bin, unsure if the product was recyclable, it was not convenient, and not being sure where the closest bin was. On campus, both super seniors reported to recycling if it did not require additional effort.

The super seniors lived off-campus in privately rented houses where curbside recycling services were offered or he/she was unaware of the services offered. Reasons for not recycling in their current housing included not knowing where the closest bin was and it was not convenient. Currently, both super seniors admitted to not recycling but would be encouraged to do so by increased availability of bins, incentives to recycle, curbside services offered, and recycling campaigns in the area. Their top motivations for recycling included wanting to conserve the environment and because his/her friends and family recycled.

Two graduate students participated in the survey, but only one completed it. The female that completed the survey had always recycled. In her hometown she used a communal recycling dumpster even if it required extra effort. On the university campus, not knowing where the closest bin was proved to be the biggest obstacle, yet she recycled on campus even if it required additional effort. The graduate student was living in a privately rented home that offered communal recycling dumpsters, yet her biggest obstacle to recycling was not having services available. She would be encouraged to recycle more with an increased availability of recycling bins, curbside recycling services, and recycling campaigns. The top motivational reasons for recycling included wanting to decrease the waste in landfills and wanting to do the right thing.

In regard to classification, there is no significant differing data, the researcher concluded that in current living locations, the reason for low recycling participation was due to no recycling services being offered, but with an increase in recycling bins and services available, participation would increase.

University of Mississippi students want to recycle and have recycled previously to attending the university; the habit needs to be reinforced. To make this possible in relation to this thesis topic, off-campus apartment and condominium complexes are expected to have recycling services and because they don't, expectations are not met and the consumer therefore will not follow through with the act. Students, for the most part, want to recycle but not if it requires an additional effort; if services are offered within complexes, additional effort by residents is eliminated, increasing recycling participation rates, and causing perception of the complex to rise, while also decreasing environmental damage, and the Oxford community will benefit economically.

5. 4 Analysis of Results Based on Political Party

As the results were filtered based on political party, the following statistics were observed. An analysis was conducted based on those who reported to relate most with the Republican party, independent party, and Democrat party.

Of the 95 Republicans, 87% recycled in their hometowns while 11% did not. On campus, 81% of the Republicans recycled. When respondents who associated with the Republican Party were observed based on current living location, there was a total of 53%

who lived off campus. Of that 53%, 25 respondents lived in an off-campus apartment or condominium complex. When those 25 respondents in a complex were analyzed, 52% were unsure of their current recycling services and 48% knew there were no services offered. The biggest obstacle for not currently recycling was having no bin available. Of the students that lived in a complex and associated with Republican beliefs, 64% were not recycling, but 92% of them would have been encouraged to do so by increased availability of bins, 76% would respond to curbside services, 52% communal dumpsters, 44% incentives to recycle, and 16% to campaigns in the area. The reasons for this group to recycle included conserving the environment and reducing landfill waste.

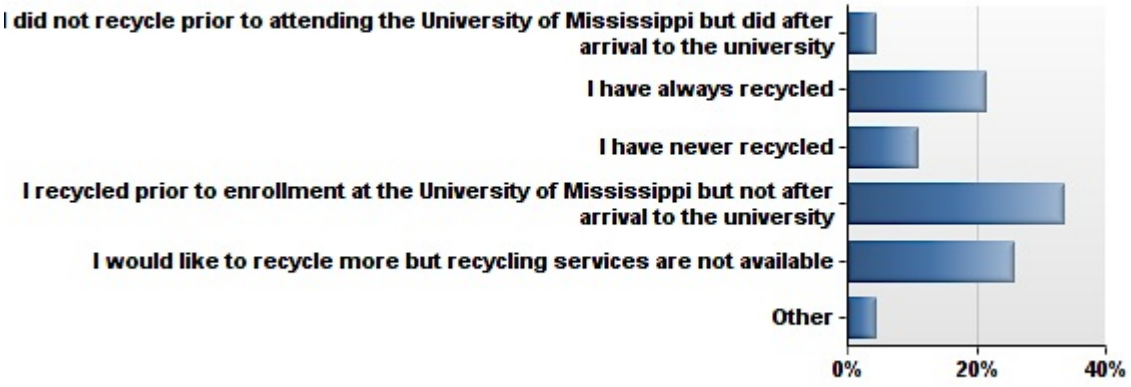
There were 17 students that reported to relate best to the ideals of an independent. Of those 17, 44% wanted to recycle more and there was one response that indicated never having recycled. In one's hometown, 87% recycled. Based on campus recycling attitudes and behaviors, 76% recycled while on campus but the biggest obstacles were having no bin available or not knowing where the closest bin was. There were four respondents (27% of independents) that lived off campus in an apartment or condominium complex. Of those living in a complex, 75% knew there were no recycling services offered and 25% were unsure of the recycling services. The biggest obstacle to recycling in their complex was having no service available. This contributed to the low participation rate—75% did not recycle. Those living in a complex reported they would be encouraged to recycle given the following: more bins available 75%, curbside service 75%, a communal recycling dumpster 50%, incentives to recycle 50%, and 25% would be encouraged by recycling campaigns in the area. The motivations to recycle included making the world a better place and wanting to do the right thing.

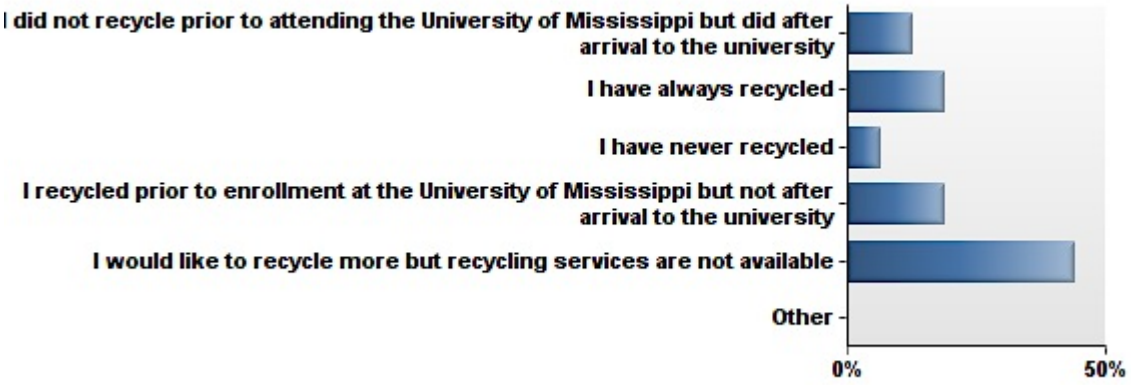
There were 7 students who associated most closely with the Democratic Party. Of those, 5 students recycled prior to enrollment but not after arrival to the university, while 2 students had always recycled. All students participated in recycling in their hometowns, 57% even if there was an additional effort required, and 43% if there was no additional effort. On campus, 86% recycled if there was no additional effort and 14% even if there was an additional effort. The biggest obstacles for not recycling on campus included not knowing where the closest bin was 57%, and having no available bin 29%. There were two respondents that lived in an off-campus complex that claimed to be Democrat. One participant was unsure of the services offered and the other knew there were no recycling services. The main obstacle that prevented recycling where one lived included no bins available. Both students that lived in a complex were currently not recycling. Increased participation would be influenced by curbside services and campaigns in the area. Motivations to recycle included conserving the environment along with feeling socially responsible, wanting to reduce the amount of waste in landfills, and making the world a better place.

As the data was analyzed based on political party association, there seemed to be no drastic differentiations in attitudes and behaviors. The majority of students, despite political party, were avid recyclers in their hometown. On campus, students tended to recycle but the biggest obstacles included no available recycling bins or not knowing where the closest bin was. No significant differences were noted when analyzing the political party of students that lived in off-campus complexes. Students were not recycling due to services not being available or unsure of what services were offered but they admitted they would be encouraged to participate if there were recycling services available. Motivations to recycle

didn't drastically differ from one political party to the next, most students' recycled for environmental reasons.

Students' overall recycling behavior is shown below in *Figure 5 G Overall Recycling Behavior Based on Political Party*. As one can observe, there are no drastic differing elements between the graphs. Despite political party, students have recycled, do recycle, or would like to recycle more. The figure is in the following order from top to bottom: Republican, Independent, Democrat, Other.





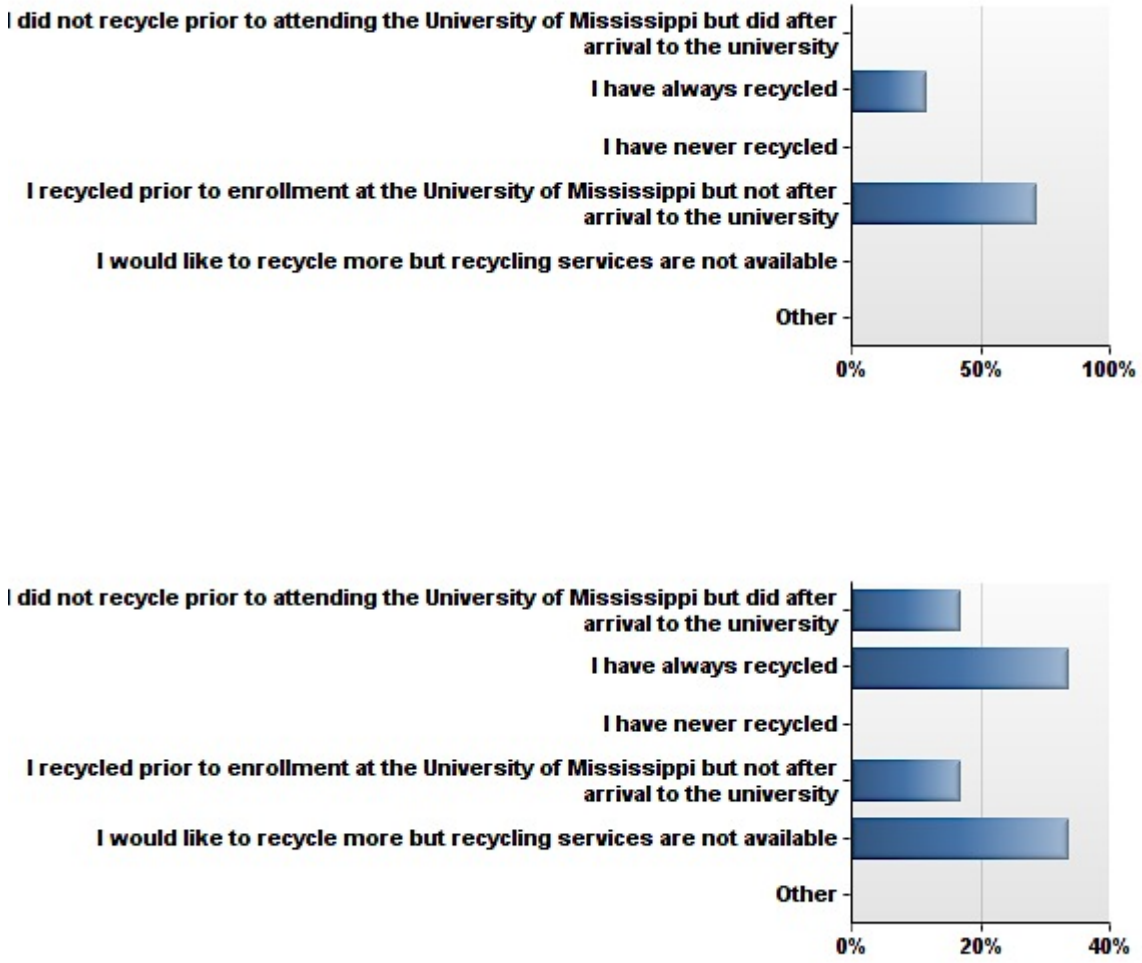


Figure 5 G Overall Recycling Behavior Based on Political Party

5.5 Analysis of Results Based on Hometown

State	Number of Respondents
Alabama	2
Arizona	1
Arkansas	4
California	4
Colorado	1
Connecticut	1
Florida	4
Georgia	12
Illinois	1
Indiana	1
Kentucky	1
Louisiana	7
Maryland	2
Michigan	1
Mississippi	25
Missouri	6
Nebraska	1
Nevada	1
North Carolina	8
South Carolina	1
Tennessee	10
Texas	21
Virginia	5
Washington D.C	1

Table 3 University of Mississippi Survey Hometown Results

5. 6 Analysis of Results Based on University of Mississippi Campus

In accordance with the survey, there were 18 respondents that reported to not recycling while on the University of Mississippi campus. Of those not recycling while on campus, 7 participants, 39%, lived in an off-campus apartment or condominium complex. With a combined filter of those who did not recycle on campus and those that lived in an off-

campus complex, 86% were not sure of the recycling services offered in their complex and 14% knew there were no recycling services. None of the participants in the cross examination were currently recycling in their complex, the biggest obstacles were no bins were available and not being sure if recycling services even were available. Of methods that would encourage recycling, 86% would recycle if curbside services were offered, 71% wanted increased availability of bins or a communal recycling dumpster.

This group of students said they did not recycle on campus, however, they seemed to have motivations to recycle already set in place, they related highest with social responsibility as a motive. So in conclusion, with an increased availability in recycling bins and services, they would have an increased probability to participate in recycling on and off campus.

5. 7 Analysis of Results Based on Off-Campus Living

When a filter was put on the survey to reveal data just for those that lived in an off-campus apartment or condominium complex, there was a breakdown in classification by 47% sophomores, 15% juniors, and 13% seniors. General recycling behavior was recoded as follows: 41% would have liked to recycle more but recycling services were not available, 12% always recycled, 11% recycled prior to enrollment but did not continue recycling after arrival, and 3% had never recycled.

On the University of Mississippi campus, 59% recycled if there was no additional effort required, and those that recycled even if they had to make an effort and those that did not recycle both stood at 21%.

Those that lived within off-campus complexes are divided—53% knew there was no service offered and 47% were not sure if there were recycling services. Of those who lived within a complex, 68% are currently not recycling, the biggest obstacle being no recycling services available. The top three encouraging factors to increase recycling behavior included an increase in available bins 82%, curbside services 73%, and communal recycling dumpsters 52%.

It is concluded that those living off-campus in complexes had previously been exposed to recycling in their hometowns as well as on campus and have a strong will to recycle within their complex. Implementing recycling services into complexes would reduce the amount of effort a resident would have to put forth to carry out the behavior of recycling and therefore increase participation rates. It would be beneficial for businesses to implement recycling services because it would reduce the gap between customers' expectations and management perception.

SECTION 6: PRIMARY RESEARCH: SURVEY ADMINISTERED TO HIGHLAND SQUARE RESIDENTS

The objective of the survey administered to Highland Square residents was to gain a better understanding of the recycling attitudes and behaviors within this particular complex.

The survey's purpose was to analyze the expectations, attitudes, behaviors, wants and needs of Highland Square residents and to gain information to better understand how the complex can meet the needs of residents based on expectations.

6. 1 The Survey Administered

After meeting with Highland Square management and getting IRB approval for the release of the survey, it was administered through the complex's email list serve and social media page being made available to all residents. The approval forms from both Highland Square and IRB to release the survey can be found within the Appendix.

The survey was released through the Highland Square official email list serve as well as on their Facebook page as a post. The conductor of the research sent the link out on her

personal Facebook page encouraging all residents of Highland Square to participate in the survey. Other residents within the complex shared the link on Facebook as well.

The following table, *Table 4 Highland Square Survey Administration Information*, breaks down the exposure the survey reached as well as calculates the response rate by taking the total number of people eligible to take the survey (710) and dividing it by the number of completed surveys.

Exposure Information	Data
Email recipients on the list serve	686
'Likes' of Highland Square Facebook page	1,431
Visits of Highland Square Facebook page	205
Facebook 'shares' of the survey link	3
Current number of residents	710
Surveys started	34
Surveys completed	25
Approximate response rate	28.40%

Table 4 Highland Square Survey Administration Information

Figure 6 A Highland Square Survey Facebook Release displays the release of the survey by Highland Square onto their Facebook page.

Figure 6 A Highland Square Survey Facebook Release

6. 2 Results of Survey Administered to Highland Square Residents

1. What obstacles, if any, keep you from recycling in Highland Square?

#	Answer		Response	%
1	No recycling services are available		26	84%
2	Unsure if the product is recyclable		6	19%
3	Don't care about recycling		1	3%
4	Other		1	3%
5	Prefer not to answer		0	0%

2. Which statement best describes your attitude to recycling in your current living location?

#	Answer		Response	%
1	I recycle even if it requires additional effort, i.e. taking recycling to the sorting center on Molly Barr Raod		5	16%
2	I do not recycle, because there are no services available		17	55%
3	I do not recycle, because I don't care		0	0%
4	I would like to recycle more		8	26%
5	Other		1	3%
	Total		31	100%

3. In your current living location, how often do you recycle the following?

#	Question	Never	Sometimes	Often	Always	Prefer not to answer	Total Responses	Mean
1	Aluminum	18	2	1	6	1	28	1.93
2	Cardboard	18	2	1	6	1	28	1.93
3	Electronic Waste	24	1	2	0	1	28	1.32
4	Food Waste	24	2	1	0	1	28	1.29
5	Paper	17	3	2	5	1	28	1.93
6	Plastic	18	3	1	6	0	28	1.82

4. Which of the following would encourage you to increase your recycling participation? Choose all that apply.

#	Answer		Response	%
1	Increased availability of recycling bins		26	93%
2	Recycling campaigns in the area		3	11%
3	Incentives to recycle		15	54%
4	Curbside services offered		16	57%
5	Communal recycling dumpster offered		15	54%
6	Other		0	0%

5. List in rank order the method of communication you use most often to receive important messages from companies or organizations.

#	Answer	1	2	3	4	5	6	7	Total Responses
1	Email	13	7	5	2	0	0	0	27
2	Facebook	4	13	4	4	1	1	0	27
3	Instagram	0	2	6	7	8	4	0	27
4	Twitter	0	0	3	6	8	10	0	27
5	Flyers/posters	0	2	7	4	9	5	0	27
6	Text message subscription services	9	3	2	4	1	7	1	27
7	Other	1	0	0	0	0	0	26	27
	Total	27	27	27	27	27	27	27	-

6. What reasons motivate you to recycle? 1 being not at all and 7 being highly motivates.

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	I am socially responsible.	2.00	7.00	5.71	1.35	21
2	I want to conserve the environment.	1.00	7.00	5.70	1.46	23
3	My friends and family recycle.	1.00	7.00	4.61	1.90	23
4	I want to decrease the amount of waste in landfills.	1.00	7.00	5.70	1.63	20
5	It's the right thing to do.	4.00	7.00	6.23	0.92	22
6	I believe recycling can boost the economy and create jobs.	1.00	7.00	4.58	1.74	19
7	I want to make the world a better place.	3.00	7.00	5.73	1.49	22

7. What gender are you?

#	Answer		Response	%
1	Female		21	84%
2	Male		4	16%
	Total		25	100%

8. What is your classification?

#	Answer		Response	%
1	Freshman		0	0%
2	Sophomore		1	4%
3	Junior		1	4%
4	Senior		20	80%
5	Super Senior		1	4%
6	Graduate Student		0	0%
7	Faculty and Staff		1	4%
8	Other		1	4%
	Total		25	100%

9. What political party do you most closely relate to?

#	Answer		Response	%
1	Democratic		2	8%
2	Independent		5	20%
3	Republican		16	64%
4	Other		2	8%
	Total		25	100%

10. Which of the following responses best describes your overall recycling behavior?

#	Answer		Response	%
1	I have always recycled		3	12%
2	I recycled prior to enrollment at the University of Mississippi but not after arrival to the university		9	36%
3	I did not recycle prior to attending the University of Mississippi but did after arrival to the university		2	8%
4	I have never recycled		1	4%
5	I would like to recycle more but recycling services are not available		8	32%
6	Other		2	8%
	Total		25	100%

11. What state do you consider home?

Text Response
tennessee
Washington DC
Mississippi
California
Mississippi
Mississippi
California
Mississippi
TN
Texas
Virginia
Mississippi
Virginia
Texas
North Carolina
Texas
North carolina
North Carolina
Virginia
North Carolina
Maryland
Houston, Tx
North Carolina
Kentucky
Texas

12. What method of recycling is offered in your hometown?

#	Answer		Response	%
1	Curbside Service		19	76%
2	Communal Recycling Dumpster		3	12%
3	Not Sure of the recycling services offered		3	12%
4	No recycling services are offered		0	0%
5	Other		0	0%
	Total		25	100%

13. Which of these statements best describes your attitude to recycling in your hometown?

#	Answer		Response	%
1	I recycle even if it requires additional effort		8	32%
2	I recycle if it does not require additional effort		13	52%
3	I do not recycle		4	16%
4	Other		0	0%
	Total		25	100%

14. In your hometown, how often do you recycle the following?

#	Question	Never	Sometimes	Often	Always	Recycling services not available	Total Responses	Mean
1	Aluminum	3	0	2	16	0	21	3.48
2	Cardboard	1	3	4	13	0	21	3.38
3	Food Waste	12	3	1	5	0	21	1.95
4	Glass	2	0	3	16	0	21	3.57
5	Paper	1	3	5	12	0	21	3.33
6	Plastic	0	3	2	16	0	21	3.62

15. What obstacles, if any, keep you from recycling on the University of Mississippi campus?

#	Answer		Response	%
1	No bin is available		14	56%
2	Bin is full		1	4%
3	Unsure if the product is recyclable		10	40%
4	Don't care about recycling		0	0%
5	Other		2	8%
6	Prefer not to answer		0	0%

16. Which of these statements best describes your attitude to recycling on the University of Mississippi campus?

#	Answer		Response	%
1	I recycle even if it requires additional effort		8	32%
2	I recycle if it does not require additional effort		14	56%
3	I do not recycle		2	8%
4	Prefer not to answer		1	4%
	Total		25	100%

17. On the University of Mississippi campus how often do you recycle the following?

#	Question	Never	Sometimes	Often	Always	Total Responses	Mean
1	Aluminum	9	6	1	7	23	2.26
2	Cardboard	13	4	3	3	23	1.83
3	Electronic Waste	18	4	0	1	23	1.30
4	Food Waste	18	4	0	1	23	1.30
5	Paper	5	9	4	5	23	2.39
6	Plastic	3	9	4	7	23	2.65

Figure 6 B Highland Square Recycling Survey Results

6. 3 Analysis of Results Based on Classification

When analyzing the results from the survey, shown in *Figure 6 B Highland Square Recycling Survey Results*, respondents completing the survey showed a breakdown by classification of 80% Seniors, 4% Junior, 4% Sophomore, 4% Super Senior (additional semesters or years after four years to complete undergraduate degree), 4% Faculty and Staff, 4% Other, responding 'Ole Miss'.

Through the software used to conduct and administer the survey, Qualtrics, filters and crosstabs were applied to the results to better understand and analyze responses. In the following analysis, a filter was placed on each classification to observe trends, attitudes, and behaviors between grade levels.

Seniors had the highest response rate, accounting for 80% of the respondents. Of the seniors that participated, 85% were female, and the remaining 15% were male. The political breakdown was as follows: 70% Republican, 20% Independent, and 10% Democrat. When

asked what obstacles, if any, keeps one from recycling, 17 residents said no recycling services are available and the remaining five senior residents are unsure if the product is recyclable. Currently in Highland Square, the majority of seniors are never recycling material that could be, regarding to Oxford recycling standards. However, there are still some people who always, sometimes, or often recycle within the complex. The survey shows that seniors would be encouraged to increase their recycling participation (listed in order from most to least responses) if there was: increased availability of recycling bins (20), communal recycling dumpster offered (14), curbside services offered (13), incentives to recycle (10), and recycling campaigns in the area (3).

To be reached, the best platforms to utilize are (listed in order from most to least responses): email, Facebook, flyers/posters, Instagram, Twitter, text message subscription services. This information would prove useful when trying to advertise recycling and gain awareness for the environmental concern within the Highland Square community. The top three motivators to recycle included 'it's the right thing to do', 'I want to decrease the amount of waste in landfills', and 'I want to conserve the environment'.

Based on the senior residents' responses regarding ones hometown, 90% are offered curbside services. There were 12 seniors that recycled if it did not require additional effort, six that recycled even if it required additional effort, and two who did not recycle in their hometown.

On Campus, seniors report recycling obstacles of having no bin available (12), unsure if the product is recyclable (6), other (2), and the bin being full (1). Additionally, the survey results show that most seniors recycle if no additional effort is required, and there are still some who recycle even if an extra effort is required.

The data shows that there are similar trends between the senior class resident responses and the junior residents that responded. The overall insight gained from the junior class responses was that they have a desire to recycle more but there are currently no recycling services available.

Patterns in the data continued to emerge when analyzing the results based on sophomore, super senior, and faculty/staff classification.

When the data was analyzed in regard to resident classification there seemed to be similar responses between each class. There appeared to be a collective desire to recycle within Highland Square but the services were not available. Most respondents had previous experience recycling in their hometown and on the UM campus.

6. 4 Analysis of Results Based on Political Party

When a filter to differentiate the data by political party was placed on the Highland Square survey results, similar trends and patterns overlapped between the Republican, Democratic, and Independent parties. There were no major differences between the data; the overall recycling attitude was favorable and a desire to recycle more within Highland Square was concluded, regardless of political party.

The data that corresponded with residents identifying with the Republican Party suggested that they recycled prior to enrollment at the University of Mississippi but not after arrival. Of this party, ¾ recycle in their hometown. There were 16 residents that make up the

Republican Party statistics. The top motivators to recycle included the desire to do the right thing and to conserve the environment.

There were five residents who reported being independent. They express the desire to recycle more and to do this they suggest Highland Square to provide recycling services. This group already recycles in their hometown and on the UM campus. What drives this particular group to recycle includes wanting to decrease the amount of waste in landfills and make the world a better place.

Two individuals composed the group of residents that associated closest with the Democratic political party. The data reveals them to be avid recyclers, not only in their hometown and on campus but also even in Highland Square, despite their lack of recycling services offered. They put in the extra effort by taking their recycling to the Oxford Recycling Center on Molly Barr Road. Behind their behavior is a desire to decrease the amount of waste in landfills, conserve the environment, and because it is viewed as the right thing to do.

Across the differing political parties, there tended to be more trends that were alike than those that differentiated them. Despite one's political party, there was a general consensus in favor of recycling service being offered within Highland Square and an implied understanding that residents aren't taking recycling action because of the lack of services provided.

6. 5 Analysis of Results Based on Hometown

The following analysis is based on residents' hometowns to determine if there are any patterns between one's recycling attitude and behavior and the region of the United States in which they are from. *Table 5 Highland Square Hometown Analysis* helps depict the breakdown of residents into regions of US they are from. The northeast region contains Maryland; the south-east is composed of Washington D.C., Virginia, North Carolina, Tennessee, Kentucky, and Mississippi residents. The Southwest is made up of residents from Texas, and those from California are within the West region.

The data shows that northeastern residents participate in recycling in their hometowns as well as make the effort on campus, but are currently not recycling within Highland Square because there are no recycling services available.

The emerging patterns of the southeast recycling attitudes and behaviors based on the results from the Highland Square Survey reveal that recycling participation is most prevalent when residents are in their hometown and curbside or communal services are available. These residents tend to recycle when they are on campus if there is an available bin and there is no extra effort involved. This group of students would like to recycle more within Highland Square by having services made available.

The Southwest region is composed of residents whose hometown is Texas. This region's trend seems to be following the same patterns that have emerged through the other areas of the United States. Residents are not recycling within Highland Square because of the lack of services offered, but with an increased availability of curbside or communal services or incentives to participate, more residents would be willing to take action. They are offered

services in their hometown and strive to recycle while on the University of Mississippi campus.

Hometown State	Survey responses from Residents of Highland Square
California	2
Kentucky	1
Maryland	1
Mississippi	5
North Carolina	5
Tennessee	2
Texas	5
Virginia	3
Washington DC	1

Table 5 Highland Square Hometown Analysis

Respondents from the Western region of the U.S. prove to be avid recyclers in their hometowns (where curbside services are offered), on campus when bins are available, and within the Highland Square complex. The motivation for this area falls under wanting to conserve the environment. Like residents from the other regions, a desire for Highland Square to improve their recycling services is requested, and their participation would increase.

It seems that there were no significant factors that differentiated residents from one area of the United States from another. Regardless of region, residents want more recycling services available within the Highland Square complex, and this would increase their participation based on their previous recycling habits in their hometown and on campus where they are participating in recycling behavior when available and convenient.

6. 6 Analysis of Results Based on Highland Square

The responses from the survey show a demand for more recycling services within Highland Square. In the figure below, *Figure 6 C Current Attitude to Recycling in Highland Square*, you can see that residents react positively to recycling efforts. People aren't recycling because of a lack of bins available but they have the desire to recycle more. Some residents accommodate for the lack of services within Highland Square by taking his/her collected recycling to the Oxford Recycling Center on Molly Barr Road and sorting it there.

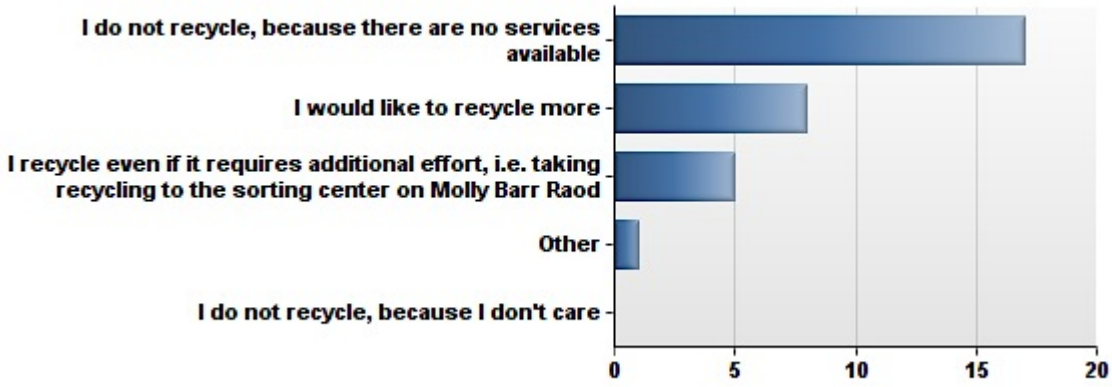


Figure 6 C Current Attitude to Recycling in Highland Square

The statistics reveal that the biggest obstacles keeping residents from recycling is the lack of services offered within the complex and being unsure whether a particular product is recyclable in Oxford and therefore don't dispose of it properly. Theoretically, it seems that if the residents were offered recycling services and educated on common items that Oxford recycles, there would be improvement in the recycling participation throughout Highland

Square. *Figure 6 D Obstacles Keeping Highland Square Residents from Recycling* displays the information collected.

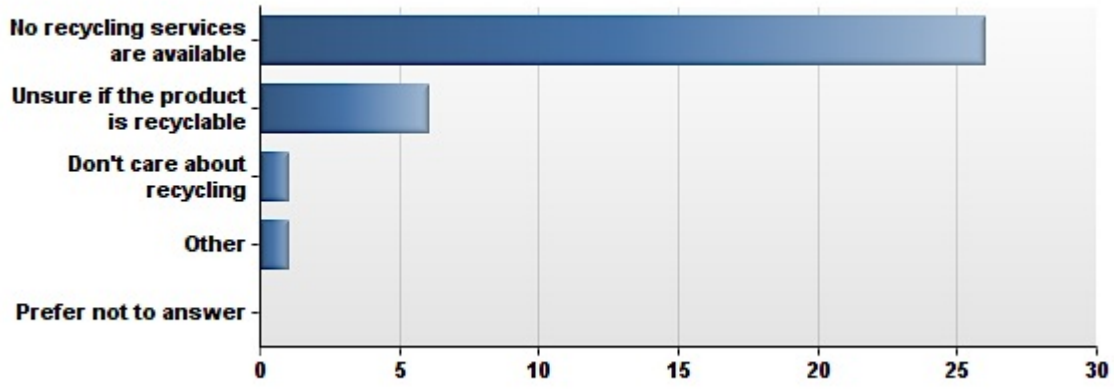


Figure 6 D Obstacles Keeping Highland Square Residents from Recycling

Residents provided insight as to what could help encourage them to increase their recycling behavior within the complex. *Figure 6 E How to Encourage Highland Square Recycling Participation* shows the data that was collected. It seems that participation would automatically begin to increase if recycling services were made available to the residents. Curbside services tend to be favored with communal recycling dumpsters following as choice of preference for services offered. Incentives to recycle would also encourage residents to participate and increase their recycling actions. A recycling campaign does not seem to be beneficial to encourage residents, but when used alongside the implementation of bins to the complex, it would prove beneficial to raise awareness and increase exposure to the new amenity.

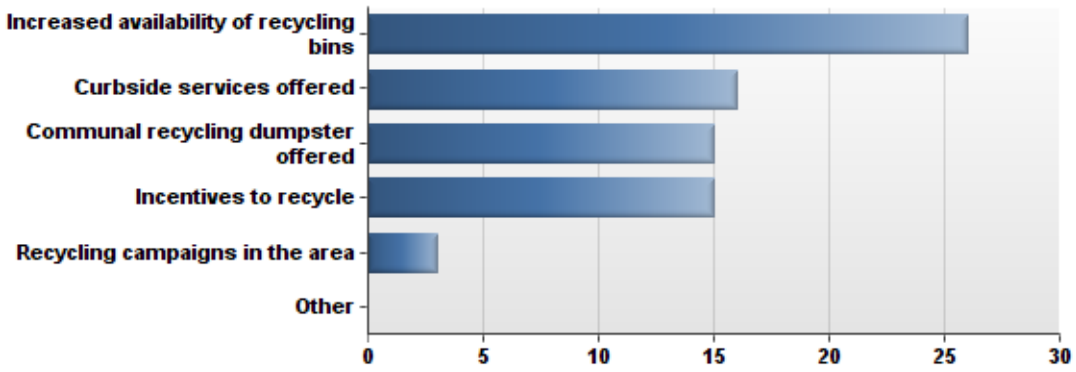


Figure 6 E How to Encourage Highland Square Recycling Participants

In conclusion, when basing the data on what would be most beneficial to Highland Square as a business operation, closing the gap between what the residents desire (recycling services) and what Highland Square is providing (or lack there of) would increase perceptions of the complex in the eyes of the consumer. By implementing recycling services into Highland Square for the residents, brand image through the eyes of the consumer would grow more favorable and the needs of the residents will be satisfied.

6. 7 Conclusion of Highland Square Recycling Survey Data

This survey proved very beneficial in gaining valuable information on the recycling attitudes and behavior of off-campus students, in particular the residents of Highland Square.

The findings that appear to be most applicable to the study show that residents within Highland Square are not recycling due to the lack of services. With the implementation of curbside or communal services to the complex, participation in recycling would increase because residents want to recycle in the complex, recycle in their hometown, and when possible recycle on campus. Having the option to recycle in off-campus locations, in this case Highland Square, would improve the recycling participation rate, as well as close the Knowledge Gap in the Customer Experience Gap Model that is being created by the miscalculation of resident expectations and needs by Highland Square management.

SECTION 7: PRIMARY RESEARCH: INTERVIEWS

7. 1 Interview of Republic Services, Michael Wells

Michael Wells
Contact: (662) 934- 0675
Mwells2@republicservices.com
Date of Interview: March 26, 2015
Conducted by: Cameron Klass
Medium: Email

Does Republic Services offer recycling services?
Yes, we offer recycling services with our Roll Off system, which just includes the collection of cardboard.

Are there recycling services currently being executed in Highland Square?
No

Are curbside or communal dumpster services offered to the complex?
No curbside, recycling is done with rebates, we would charge for the removal only.

What is the pick up day for recycling for the Highland Square complex?
N/A

Any additional comments:
If we provided recycling for Highland Square we would place different containers for different recycling material (cardboard, plastic, paper). But we do not offer recycling services to Highland Square.

This may not be much help because our recycling in this area is very limited. We offer some cardboard recycling with our roll off system. In this area we do not have a facility that separates the material. Recycling would work best at Highland Square with curbside service so the resident would place all material in one bin so they are not responsible for the separation process.

7. 2 Interview of City of Oxford Recycling, Amberlyn Liles

Amberlyn Liles
Contact: (662) 232-2359
Office: 717 Molly Barr Road
Date of Interview: March 20th, 2015
Conducted by: Cameron Klass
Medium: Phone & Email

Is Highland Square in the curbside recycling area?
Highland Square currently uses Republic Services they do not use us (the City of Oxford). It was up to Highland Square management to decide on a collector. We would love if they switched to our services.

How would Highland Square approach getting recycling services offered to all residents?
We offer both curbside recycling services as well as communal dumpster services. We service several student-housing complexes including The Links, but they don't want the curbside bins present so they are not currently using the service to the upmost.

Could curbside recycling become an option for Highland Square? How?
We are currently not the service in Highland Square but if they were to switch to the City of Oxford then curbside or communal services could be offered to Highland Square residents.

What would it cost to get recycling bins for curbside pick up at Highland Square? Would there be a discount in bulk if Highland Square were to purchase bins for each house?
We don't charge for the bins, it's free. It is the sanitation costs of $18.00 per month per unit that we charge for.

What occurs at the recycling plant on Molly Barr Road?
Molly Barr Road Recycling is a collection point for different locations. Recycling can be brought and sorted here.

What occurs at the recycling plant on Pea Ridge Road?
This facility is used for processing, sorting, and shipping. Paper materials are converted to reusable resources, cardboard is made into more cardboard products including cereal boxes and light packaging, newspaper is converted into more newspaper, insulation, and McDonald drink carriers, recycled aluminum makes more aluminum products, steel cans create more steel products, and plastic is converted into clothing and reusable shopping bags, just to name a few uses of our recycling products.

Any additional comments:
When Grove Hill (the previous complex to Highland Square) was developed, it was built on individual meters. Each house would receive a bill from electric, water, sanitation and sewer services. When the new part was built, Highland Square, it was developed on master meters. If we took it over we would have to bill each unit individually.

Images:

Figure 7 A The City of Oxford Recycling Images

SECTION 8: CAMPAIGN OBJECTIVES

Based on this specific situation and the insight collected through primary and secondary research, the overall objectives of putting together and implementing a campaign on recycling within Highland Square are as follows:

- Provide recycling services to all residents of Highland Square.
- Make students/residents aware of what materials can be recycled and the day of recycling pick up in Highland Square.
- Have students/residents increase their recycling behavior within Highland Square.
- Have resident's perception of Highland Square be more positive as expectations are met.

SECTION 9: CAMPAIGN STRATEGY

9. 1 Insights Drawn from All Research

Insights on the behavior of college students' recycling is cross examined with the brand/image of Highland Square to help further lead to insight for the strategic plans. Where the two circles overlap in *Figure 9 A Cross Reference Insight* is where the 'sweet spot' or the 'big idea' lies for the campaign.

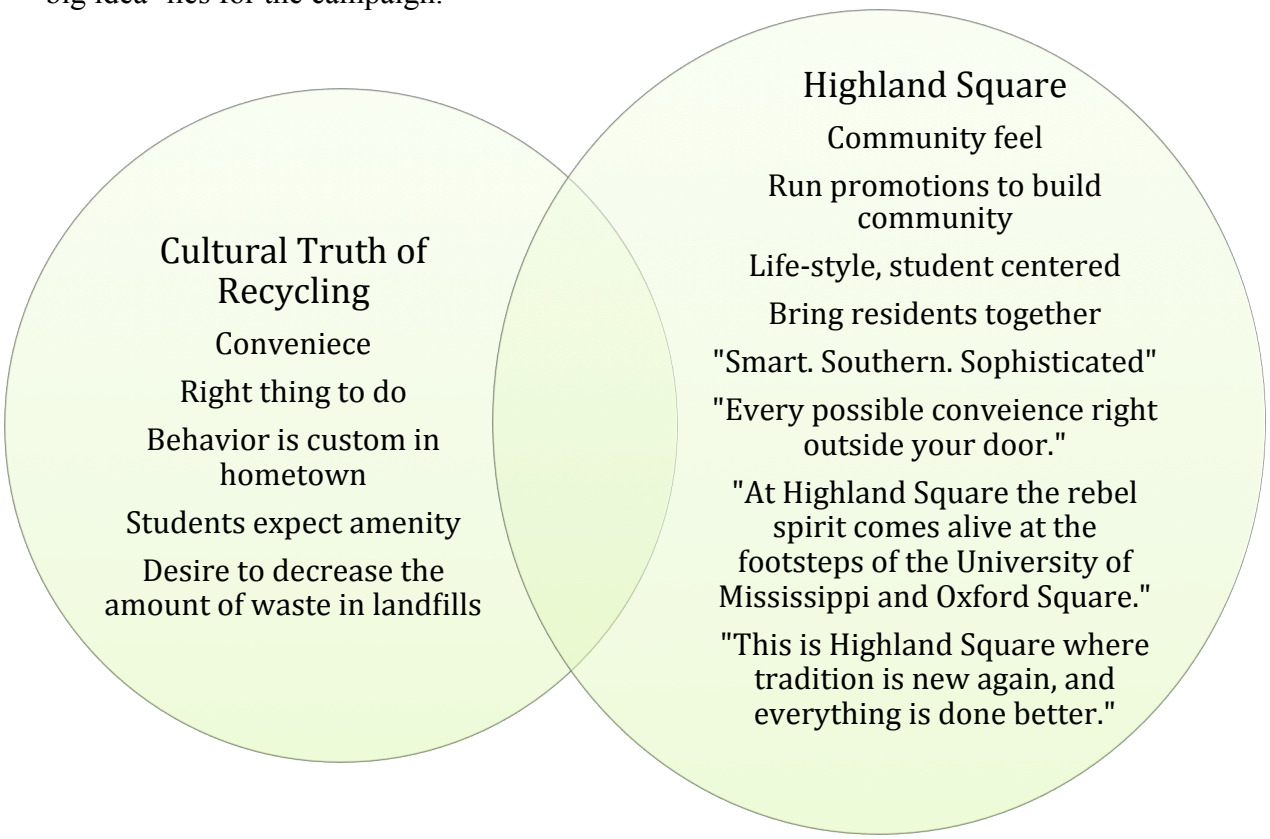


Figure 9 A Cross Reference Insight

The target audience resonates with convenience—this is the primary motivator for students and Highland Square residents behavior not only in regards to recycling but also in most life situations. With this insight, the campaign focuses on making recycling as convenient as possible for the residents within the complex. Residents already recycle in their hometowns and when the option is available on campus, so once the services are available within the complex, the campaign is designed to bring forth previous habits of recycling and reinforce them.

9. 2 Strategic Media Plans

To raise awareness within the Highland Square complex and gain an increased rate of participation in recycling behavior, a combination of media channels will need to be employed. For maximum exposure, the most efficient and effective ways to reach the target audience lie in *Figure 9 B Strategic Media Plan*.

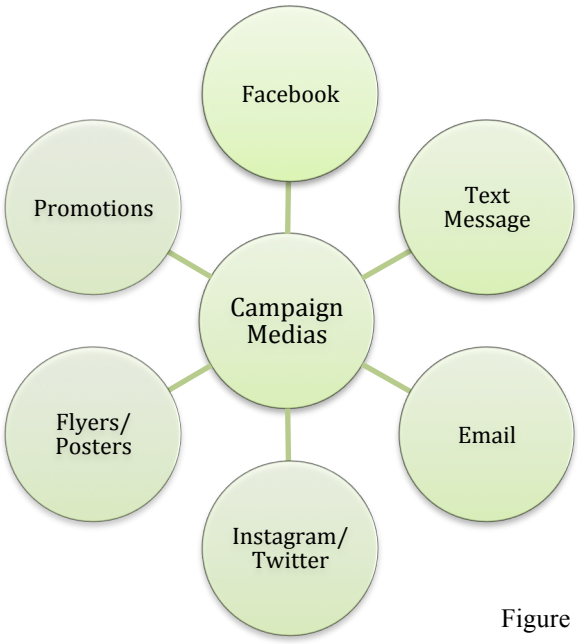


Figure 9 B Strategic Media Plan

There are clear advantages to using each of the media channels selected in this particular campaign. The target audiences, Highland Square residents who are also students at the University of Mississippi, already have a predisposition to recycle and admit wanting to recycle more if availability and convenience prevail. With a combination of the feedback from the Highland Square Survey, University of Mississippi Survey, and consumer insight, the following benefits for the use of each media is explained in *Table 6 Media Benefits*.

Medium	Price	Benefit of Use
Facebook	N/A	-Residents follow the page -Postings are sent to newsfeed -Allows for photo and link shares -Wide spread audience reach -Highly used medium by college students
Text Message from Highland Square	N/A	-College Students are rarely without their cell phone -Direct contact with target audience -Easy and fast way to distribute information to residents -Preferred method of communication
Email	N/A	-Access to most residents email on list serve -Used method of communication by target audience
Instagram/Twitter	N/A	-Commonly used form of social media by target audience -Encourages follows, likes, and feedback -A way to connect with audience and 'become one of them'
Flyers/ Posters	(See projected budget)	-Visual reminders noticed conscious or subconsciously -Reinforce the campaign

		through exposure -Place in common areas including main office, gymnasium, pool area, etc. -A lawn sign can be placed by the Highland Square entrances the day before pick up
Promotions	(See projected budget)	-Incentives to participate -Gain awareness and interest in the subject matter of the campaign -Bring the Highland Square community together -

Table 6 Media Benefits

9. 3 Campaign Title, Logo, Slogan

Campaign Title: Crush Em' Rebs

The combination of research and data analyses led to the overall idea for the campaign: 'Crush Em' Rebs'.

'Crush Em' Rebs' originated from several different connotations of the phrase, all however tie back to the main objectives of the campaign. First of all, the use of the word 'rebels' or 'rebs' is widely known to stand for athletes, the student body, faculty and administration, and all those that consider themselves part of the 'Ole Miss family'. By bringing common ground to a wide variety of differing people, a sense of community is created. Within Highland Square, by referring to residents and students as 'rebs', togetherness is formed.

Second, the phrase could be interpreted as a means to boost school spirit, ‘crush em’’ implying to beat the opponent in athletic events. This again builds community within Highland Square because athletic events in which everyone is pulling for the same team brings people together.

Third, the term ‘crush’ has synonyms, which include “compress” and “squash”. One might link the connotation of the word to the crushing of an aluminum can or plastic bottle. This in turn would trigger the action to properly dispose of recyclable materials.

Logo:

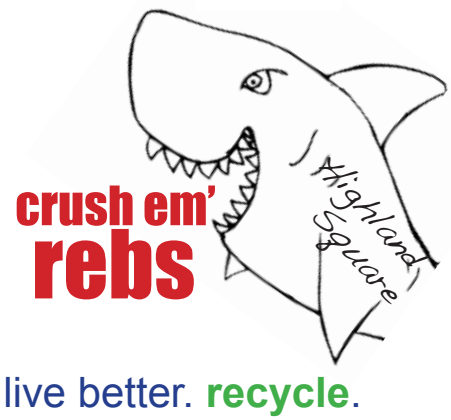


Figure 9 C Campaign Logo

Slogan: live better. recycle.

Highland Square brands itself on a foundation of luxury student housing that has every convenience right outside your door. The complex has a central focus of building a strong student community. Their slogan is not only “Smart. Southern. Sophisticated.” but, “Live Better”.

The idea of "live better" works well to carry over into the recycling campaign. The use of this slogan in particular not only brands the message back to Highland Square, but it ties in with what students reported in the surveys conducted of wanting to recycle to 'do the right thing', 'decrease the amount of waste in landfills', 'conserve the environment', etc. It promotes that idea that if you live in Highland Square, you will be offered recycling services (most off campus student housing does not offer the amenity) and therefore you can 'live better' than you would anywhere else.

9. 4 Strategic Timeline

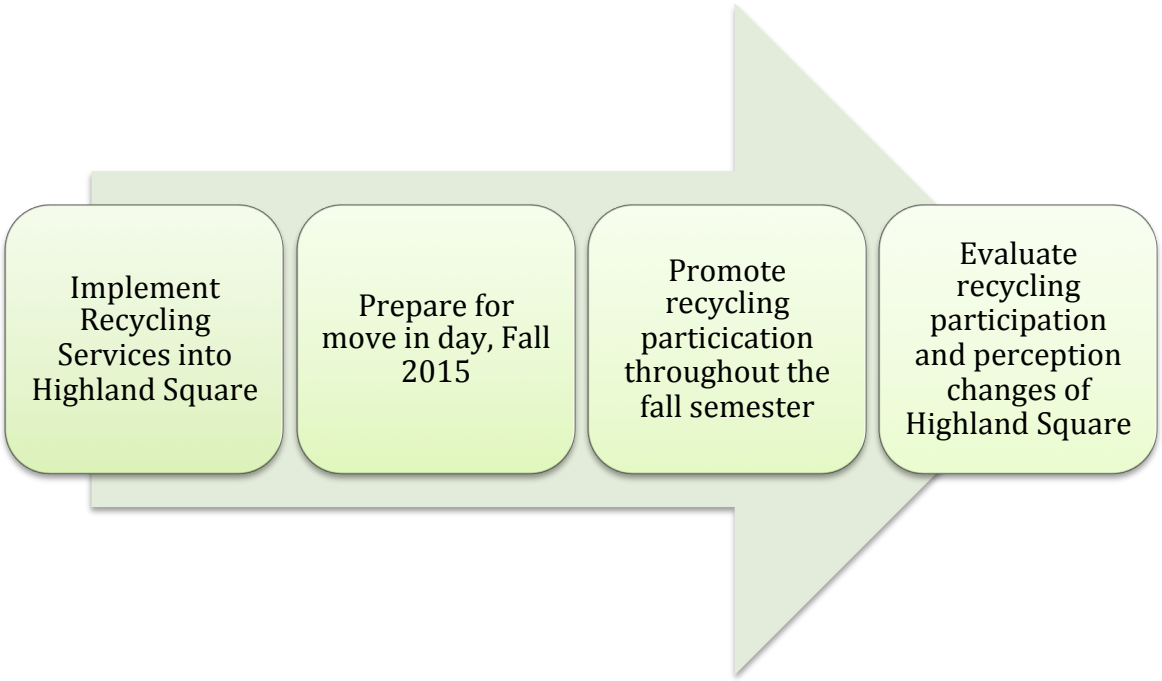


Figure 9 D Simple Strategic Timeline

May-July 2015 Strategic Plan:

- Switch waste services from Republic Services to the City of Oxford Recycling for the Highland Square collector.
- Order curbside bins for each unit within Highland Square from the City of Oxford Recycling.
- Order Bullseye Trio Recycling bins for public areas including:
    - The three pool locations
    - The main office
    - Basketball court
    - Volleyball court
    - Study room
    - Gymnasium
- Place orders to receive before August:
    - Flyers
    - Refrigerator Magnets
    - Can Coolers
    - EZ Can Crushers

August 2015 Strategic Plan:

- Before fall 2015 move in day, Highland Square will distribute the curbside recycling bins to each housing unit placing them in the kitchen of each unit.
- A refrigerator magnet will be placed on the refrigerator in each unit.
- A flyer will be placed in each welcoming packet received upon check-in in the main office.
- Can coolers will be placed in the main office to promote the use of aluminum cans over glass bottles and help spread awareness to recycle in Highland Square. Students may pick up a coozy as they please entering and exiting the main office throughout the semester.

September 2015 Strategic Plan:

- Text message sent to residents to inform and remind residents of collection day.
- Facebook postings to remind residents to recycle in their homes and around the community.
- Promotions and incentives:
    - Amazon gift cards
    - University of Mississippi Football Tickets
    - EZ Can Crusher
    - Exempt from electricity bill for a month
- Begin Yeti promotion:
    - Yeti cooler give away
    - “Yeti chills em’, Yet-i crush em’”

October 2015 Strategic Plan:

- Assess the quantity of participants within the complex by observing participation on collection day.
- Promotions and incentives:
    - University of Mississippi Football Tickets
    - EZ Can Crusher
    - Exempt from electricity bill pass
- Begin Halloween promotion:
    - Treat: Being 'Booed' by placing bags of treats in empty recycling bin after collection
    - Trick: Houses that did not place their bins on the curb for pick up get a reminder to put out their recycling for collection.

November 2015 Strategic Plan:

- Begin game day promotion:
    - Surprise Attack: Kick back and win a 30 rack
- Thanksgiving day promotions:
    - Hey-you Freeze. Have you shown your thanks to the LAND shark?

December 2015 Strategic Plan:

- Final semester evaluation of recycling participation and measurement of Highland Square satisfaction of recycling amenity.
- Release a follow up survey to obtain feedback from residents about the new amenity and perception of the complex.

SECTION 10: CAMPAIGN BUDGET

10. 1 Projected Recycling Bin Costs

The following information on recycling bins and brands was found on Recycling Supply Co (Recycling Bins and Recycling Containers). The data provided in the tables below show a variety of recycling methods that could be implemented and the cost for obtaining the bins. This provides alternative methods to obtain recycling services so Highland Square management can compare all available options.

Curbside Recycling Bins:

Provider	Size	Price
City of Oxford Recycling		Free
Rubber Maid	14 Gallon	$34.10 (minimum order quantity of 6)
Rubber Maid	18 Gallon	$43.90 (minimum order quantity of 6)
Recycling Supply	14 Gallon	$12.95 (minimum order quantity of 6)
Recycling Supply	18 Gallon	$14.95 (minimum order quantity of 6)

Table 7 Curbside Recycling Bin Budget

Communal Recycling Bins:

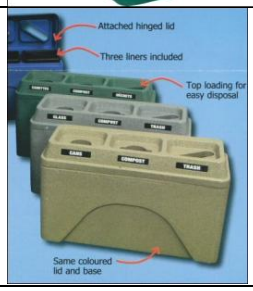
Provider	Size	Price	Image
City of Oxford Recycling		$14,000	
OTTO	450 Gallons	$650.00	
Bullseye Trio Recycling Station	25 Gallons (each)	$750.00	
Bullseye Triplet Recycling Station	25 Gallons (each)	$595.00	

Table 8 Communal Dumpster Budget

10. 2 Projected Collection Services Cost

Collection service fee for curbside recycling services:

Service Provider	Price
The City of Oxford Recycling	$18.00 per housing unit
Republic Services	N/A

Table 9 Collection Cost for Curbside Services

Highland Square Housing Breakdown:

Number of Units	Unit Size	Style of Unit
4	2x2	Cottages
26	2x2	Flats
4	2x2	Flats above club house
33	3x3	Cottages
10	3x3	Flats
22	3x3	Town Houses
38	4x4	Cottages
44	4x4	Town Houses
37	4x4	Houses
18	5x5	Cottages
2	6x6	Houses
-	-	-
Total Units: 238		

Table 10 Highland Square Housing Breakdown

The following data has led to the assumptions below:

If the City of Oxford Recycling curbside services were implemented into Highland Square the collection fee for the apartment complex per month would be as follows:

- $18.00 collection fee x 238 units = $4,284.00 per month for curbside recycling services.

If the City of Oxford Recycling curbside services were implemented into Highland Square, disregarding the number of flats, the collection fee for the apartment complex would be as follows:

- $18.00 collection fee x 198 units = $3,564.00 per month for curbside recycling services less the flats.

Collection service fee for communal recycling services:

Service Provider	Price
The City of Oxford Recycling	$0
Republic Services	N/A

Table 11 Collection Cost for Communal Services

10. 3 Projected Ancillary Costs

There should be consideration of costs that may occur unplanned within the campaign. Examples of such costs could include shipping and handling, which have not been projected in the budget.

10. 4 Projected Promotional Costs

The Objective and Task Budgeting Approach would be most beneficial when analyzing the projected budget for Highland Square on promotional costs. With the objectives of the campaign in mind, the following budget is formulated for promotions within the complex to achieve these goals. There are many different providers for advertisements and promotional products; however, for the purposes of this study, Vistaprint, an international printing and promotional corporation, is used for estimates in *Table 12 Promotion Costs*. Note, that if desired by Highland Square management, an alternative company may be used to obtain the materials to carry out the campaign.

Promotion Costs:

Medium	Quantity	Price
Flyers, half-page	50 100 250	$12.74 $25.49 $44.99
Flyers, full-page	50 100 250 500	$26.24 $44.99 $86.24 $108.74
Refrigerator Magnet	100 200 500	$27.19 $46.74 $101.99
Can Cooler	144 240 360 480	$486.59 $815.99 $1,223.99 $1,631.99
EZ Can Crusher	1	$24.95
Amazon Gift Card	1 5	$50.00 $250.00
Yeti Cooler, Roadie 20	1	$249.99
University of Mississippi Football Tickets Fall 2015		
Highland Square Electric Bill Exemption	1 resident 1, 4 person unit	$20+ $80+

Table 12 Promotion Costs

SECTION 11: CAMPAIGN EXECUTION

11. 1 Sample Highland Square Promotions

The following figure, *Figure 11 A Example Highland Square Promotions*, displays promotional advertisements that Highland Square has previously help over the 2014-2015 school year. The promotions that have ran display the following shared objectives and goals:

- Promote a feel of community within the complex—bringing students together
- Encourage repeat customers
- Gain insight into residents' purchase intent
- Increase goodwill and brand/image perception

CRAWFISH BOIL ON 4/23 AT NOON!!
Join us for FREE crawfish, corn & potatoes!
Leasing & renewal specials!
YETI cooler give-aways!
DJ D-Wade in the house!
FREE wristbands for drink specials on The Square!

Stop by the Clubhouse BEFORE your night out for freebies!

Sign a lease or renew on 3/17 & it's your LUCKY DAY
$50 GIFT CARDS on the spot | Invite your FRIENDS
FREE SHUTTLE to The Square starts at 6pm
WRISTBANDS get you 2 for 1 beverages at The Square
DRAWINGS every hour | FREE FOOD from Round Table
LiveHighlandSquare.com | 662.550.2020

Figure 11 A Example Highland Square Promotions

11. 2 Media Strategy for Highland Square Recycling Campaign

Half Page Flyer:

Figure 11 B Half Page Flyer

Full Page Flyer Example:

Figure 11 C Full Page Flyer

Refrigerator Magnet Sample:

The refrigerator magnet will provide a constant, friendly reminder to residents to recycle. It includes the material that Oxford recycles and the pick up day for Highland Square.

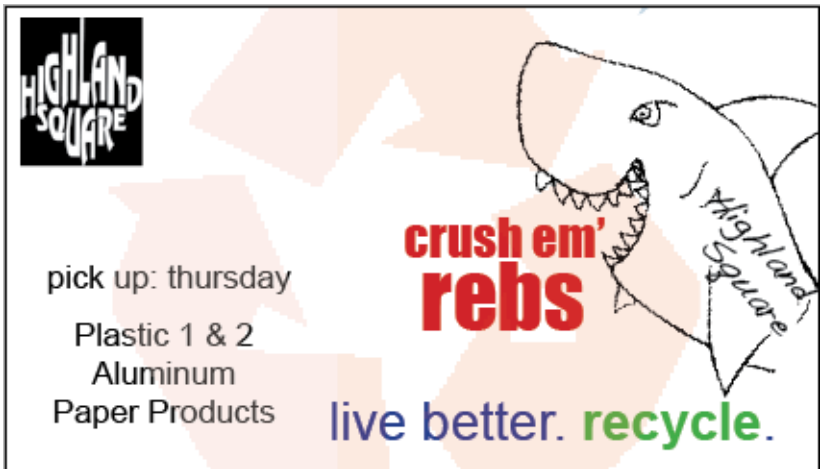


Figure 11 D Refrigerator Magnet

11. 3 Promotional Strategy for Highland Square Recycling Campaign

Can Cooler Sample:

The idea of using the can cooler is to promote publicity for Highland Square as well as promote recycling within the complex. With recycling services being implemented for the fall semester 2015, football and school spirit will be the focus of getting residents to participate in recycling. The can coolers are relevant to the target audience and provide a reminder to recycle your can after you finish it. Refer to *Figure 11 E Can Cooler* for a visual of the can cooler. Exposure will be gained as people travel with their promotional product.

Figure 11 E Can Cooler

EZ Can Crusher:

The EZ Can Crusher will be a fun and engaging promotional tactic to draw in residents. They can easily be distributed to residents to encourage can crushing and recycling. This unifies the central message of the campaign, “Crush Em’ Rebs’. The campaign logo can be made into a sticker and placed on the crusher when given to residents.

It is a small action that one sees as fun and enjoyable, like a game, rather than a task or chore. The EZ Can Crusher transforms aluminum cans from bulky, space takers into a 60% more compact form that allows you to collect more in your recycling bin (Recycling Bins and Recycling Containers). *Figure 11 F EZ Can Crusher* visually displays the device.

Figure 11 F EZ Can Crusher

Yeti Cooler Sample:

There will be a Yeti cooler give away during the month of September using the slogan, “Yeti chills em’, yet i crush em’”, under the Crush Em’ Rebs campaign. The purpose of this particular give away is to provide a large incentive that will lead to word of mouth exposure within the community, increased social media exposure, and brand awareness.

A cooler provides cold items, in particular beverages that come in aluminum and plastic packaging and branding the cooler will provide exposure for the campaign, displayed in *Figure 11 G Yeti Cooler.*

Figure 11 G Yeti Cooler

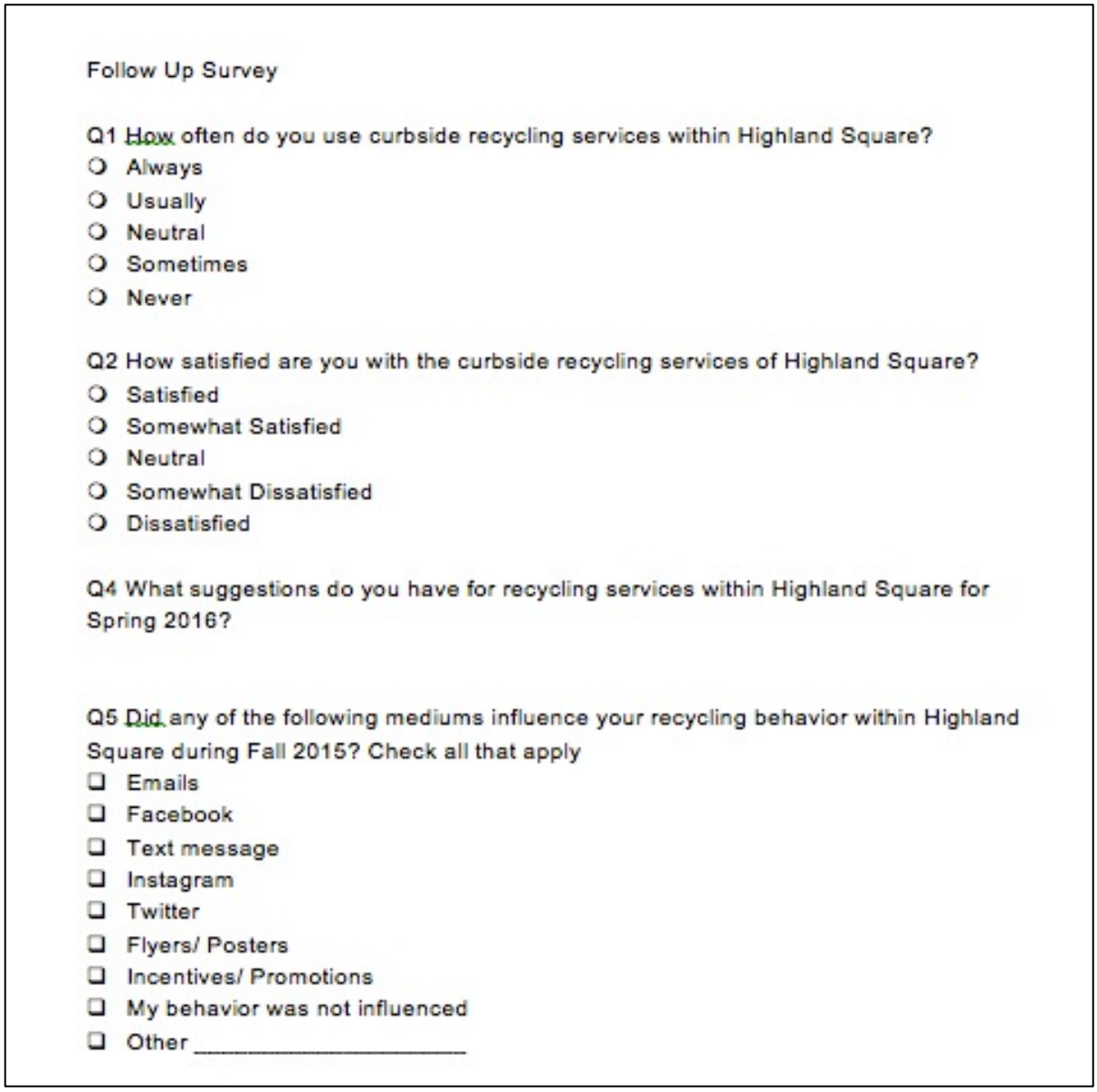
By advertising the campaign message of recycling as something more than ‘going green’ or ‘saving the planet’ it would be predicted that all residents could relate to the ‘Crush Em’ Rebs’ idea and would be reminded of previous recycling habits. An example flyer for the Yeti promotion is displayed in *Figure 11 H Yeti Cooler Flyer*.

Figure 11 H Yeti Cooler Flyer

SECTION 12: CAMPAIGN EVALUATION

The level of success can be measured by observing the participation rate in curbside recycling on pick up days within Highland Square.

Levels of success should be measured following fall semester 2015. This would allow residents to execute the services to the upmost and be exposed to campaign promotions. A follow up survey should be released at the end of Fall Semester 2015 to seek resident feedback about the new recycling amenity. The follow up survey will also act as a reminder to continue to recycle throughout the year and into the Spring Semester. A sample survey is displayed in *Figure 12 A Sample Evaluation Survey*. The administered survey link would spread through the Highland Square email list serve as well as posted to social media. The survey will be available to take on smart phones as well. *Figure 12 B Sample Evaluation Survey on Smart Phone* shows how the survey would appear on one's smart phone device, making it as simple and convenient as possible to complete to get the maximum amount of feedback from residents.



Follow Up Survey

Q1 How often do you use curbside recycling services within Highland Square?

- ○ Always
- ○ Usually
- ○ Neutral
- ○ Sometimes
- ○ Never

Q2 How satisfied are you with the curbside recycling services of Highland Square?

- ○ Satisfied
- ○ Somewhat Satisfied
- ○ Neutral
- ○ Somewhat Dissatisfied
- ○ Dissatisfied

Q4 What suggestions do you have for recycling services within Highland Square for Spring 2016?

Q5 Did any of the following mediums influence your recycling behavior within Highland Square during Fall 2015? Check all that apply

- ☐ Emails
- ☐ Facebook
- ☐ Text message
- ☐ Instagram
- ☐ Twitter
- ☐ Flyers/ Posters
- ☐ Incentives/ Promotions
- ☐ My behavior was not influenced
- ☐ Other _____

Figure 12 A Sample Evaluation Survey

Social media could also be used to measure the success of the campaign. With the campaign promoting awareness through Facebook and Instagram, the number of mentions and hash-tags can indicate awareness.

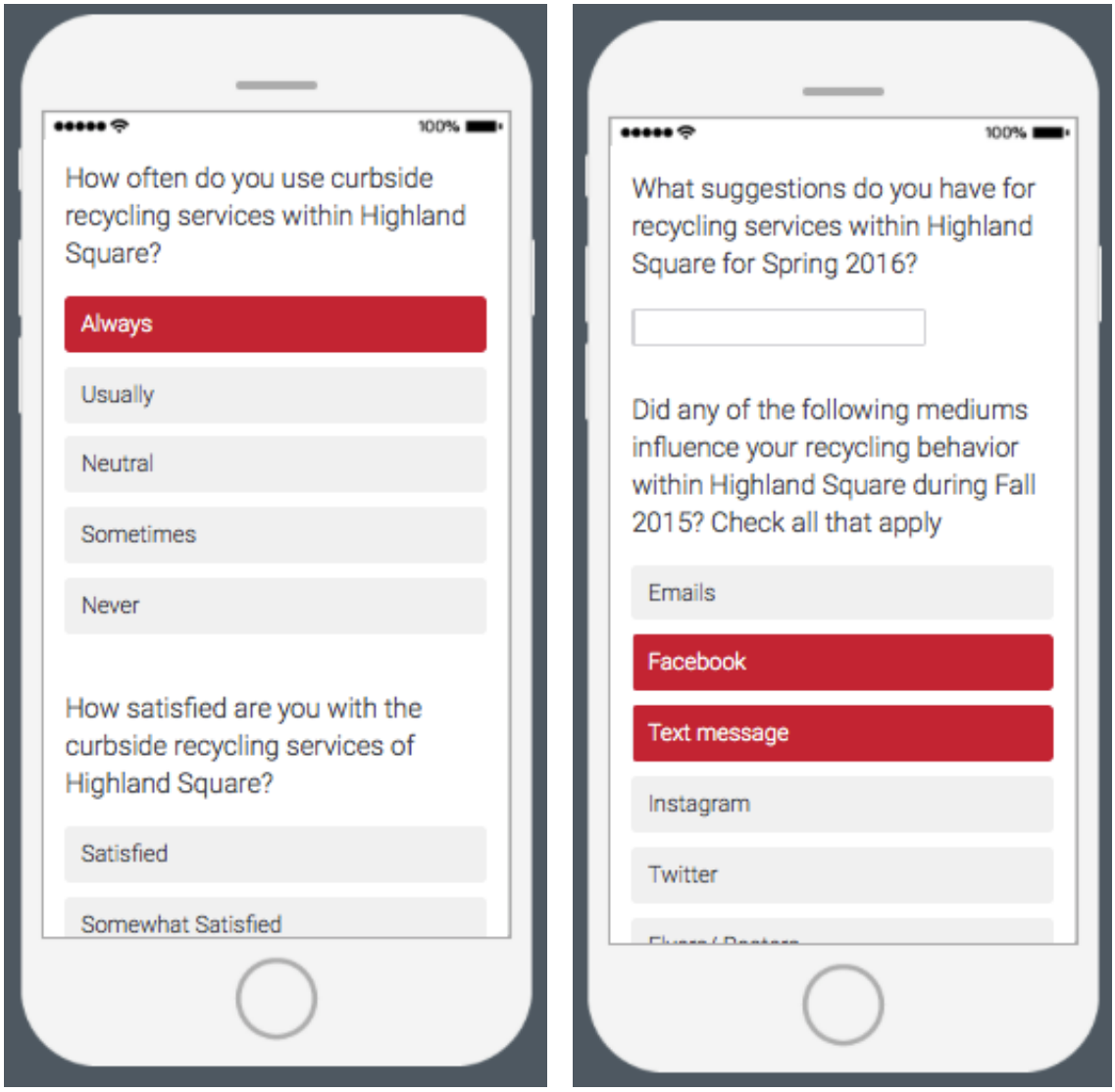


Figure 12 B Sample Evaluation Survey on Smart Phone

SECTION 13: CAMPAIGN LIMITATIONS

Due to time constraints, the strategy and campaign have not been executed to date. It will be up to Highland Square management what they wish to execute based on the current findings of expectations for recycling services. The research conductor hopes that Highland Square would implement recycling services and follow through with the campaign to increase awareness and promote participation.

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APPENDIX

Highland Square Survey Release Approval Form

Investigator
Cameron Klass
Honors Thesis, University of Mississippi
(336) 209-1544

Advisor
Christina Sparks
Assistant Professor, IMC, University of Mississippi
Meek School of Journalism & New Media
(662) 915-8985

Dear Highland Square Management,

You are invited to take part in a project that is part of my requirements to graduate from the Sally McDonnell Barksdale Honors College with honors at the University of Mississippi. A professor in the Meek School of Journalism, Christina Sparks, supervises this research project.

The purpose of this project is to help me learn more about recycling behavior off campus of the University of Mississippi.

If you take part in my research, you will consent to releasing a short online survey on Qualtrics to the Highland Square email list serve and share the link on Highland Square social media. The results from residents will be submitted anonymously.

If you have any questions or concerns, please call me at (336) 209- 1544. Thank you for your help.

Sincerely,

Cameron Klass

Signatures of Approval:

Augusta Weaver 12/14
Highland Square Management

Cameron Klass

IRB Signature Page

☐ YES ⇨ ⇨ If Yes, please explain any potential conflict of interest.
☒ NO

Do you or any person responsible for this study have existing financial holdings or relationships with the sponsor of this study?

☐ YES ⇨ ⇨ If Yes, please explain any potential conflict of interest.
☐ NO
☒ N/A

I am a current resident of Highland Square and pay for occupancy. However, this reseach is done individually and Highland Square is not financially contributing to the conduction of research. I do hope to gain a certain understanding with the complex in which they would distribute the survey to their list surve.

SIGNATURES — Principal Investigator and Research Advisor (if applicable) Must Sign Below

PRINCIPAL INVESTIGATOR'S ASSURANCE

I certify that the information provided in the application is complete and correct. As Principal Investigator, I have the ultimate responsibility for the protection of the rights and welfare of the human participants, conduct of the research, and the ethical performance of the project. I will comply with all UM policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of participants in human research, including, but not limited to the following:

- Informed consent will be obtained from the participants, if applicable and appropriate;
- Any proposed modifications to the research protocol that may affect its designation as an exempt (brief) protocol application will be reported to the IRB for approval prior to being implemented.
- Adverse events and/or unanticipated problems will be reported to the IRB as required.

I certify that I, and all key personnel, have completed the required initial and/or refresher CITI or CITI Alternative courses in the ethical principles and regulatory requirements for the protection of human research participants.

Cameron Voss 10/27/14

Signature of Principal Investigator **Date**

RESEARCH ADVISOR'S ASSURANCE (REQUIRED FOR STUDENT PROJECTS)

As the research advisor, I certify that the student investigator is knowledgeable about the regulations and policies governing research with human participants and has sufficient training and experience to conduct this particular research in accordance with the approved protocol.

- I agree to meet with the investigator on a regular basis to monitor research progress;
- Should problems arise during the course of the research, I agree to be available, personally, to supervise the investigator in solving them;
- I will ensure that the investigator will promptly report adverse events and/or unanticipated problems to the IRB as required;
- If I will be unavailable, for example, on sabbatical leave or vacation, I will arrange for an alternate faculty member to assume responsibility during my absence and I will advise the IRB by letter or e-mail of such arrangements; and
- I have completed the required initial and/or refresher CITI or CITI Alternative courses in the ethical principles and regulatory requirements for the protection of human research participants.

Christine C. Spitz 10-27-14

Signature of Research Advisor* **Date**

***The research advisor must be a UM faculty member. The faculty member is considered the responsible party for the ethical performance and regulatory compliance of the research project.**